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THE LIBRARY QUARTERLY

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THE LIBRARY QUARTERLY

VOL. IV

CONTENTS FOR APRIL 1934

No. 2

JAMES CHRISTIAN MEINICH HANSON	- - -	PIERCE BUTLER	127
BIBLIOGRAPHY OF JAMES C. M. HANSON	- - - - -		131
DILEMMAS OF CLASSIFICATION	- - - -	JOHN ANSTEINSSON	136
HOW NORWAY BECAME THE FOCUS OF AMERICAN LIBRARY METHODS IN EUROPE	- - - - -	ARNE ARNESEN	148
WOMEN NOT CONSIDERED HUMAN BEINGS	-	J. CHRISTIAN BAY	156
J. C. M. HANSON AND INTERNATIONAL CATALOGING			
		WILLIAM WARNER BISHOP	165
AUTHOR ENTRIES FOR CANADIAN GOVERNMENT PUBLICATIONS			
		JAMES B. CHILDS	169
THE WHITTIER LEAFLET "PERICLES"	THOMAS FRANKLIN CURRIER		175
THE ABBREVIATION OF IMPRINTS	- - - -	JUUL DIESERUD	179
THE UNIVERSITY OF CHICAGO LIBRARIES	- -	A. TH. DORF	185
CALL NUMBERS	- - - - -	A. G. DRACHMANN	198
THE CLASSIFICATION OF BOOKS IN LIBRARIES			
		COLMAN J. FARRELL, O.S.B.	207
CLASSIFICATION PROBLEMS IN AN INTERNATIONAL SPECIAL LI- BRARY	- - - - -	SIGMUND VON FRAUENDORFER	223
THE REORGANIZATION OF THE LIBRARY OF A SMALL COLLEGE			
		KARL T. JACOBSEN	234
NEW LIGHT ON OLD LIBRARIES	- - - -	THEODORE W. KOCH	244
ERNESTO AND EUGENIO DO CANTO	- - -	WALTHER F. KOENIG	253
THE EXPANSIVE CLASSIFICATION IN USE	- - -	ELIZA LAMB	265
LIBRARY EDUCATION	- - - - -	WALTER LICHTENSTEIN	270
THE ANONYMOUS CLASSIC AND SOME PROBLEMS OF ITS CATA- LOGING	- - - - -	HARRIET DOROTHEA MACPHERSON	274

[Contents continued on following page]

ORDER OF BOOKS BY DATE UNDER SUBJECTS

	WILLIAM STETSON MERRILL	282
THE LIBRARY ASSOCIATION EXAMINATIONS	- JOHN MINTO	285
NATIONAL DEPARTMENTS IN SCANDINAVIAN LIBRARIES		
	WILHELM MUNTHE	296
THE UNIVERSITY LIBRARY AND RESEARCH	- - A. C. NOÉ	300
THE FOREST OF PENCILS - - - -	HARRIET WHEELER PIERSON	306
LETTER TO MR. HANSON - - - - -	HERBERT PUTNAM	314
COPYRIGHT AND LIBRARIANS - - - -	THORVALD SOLBERG	315
MR. HANSON AND HIS FRIENDS - - - -	- HELEN K. STARR	329
WHO WAS J. L. S.**? - - - - -	LEONHARD STEJNEGER	334
ON THE USE OF ULTRA-VIOLET RAYS FOR DETECTING REPAIRS IN PRINTED BOOKS, ESPECIALLY INCUNABULA		
	EUGÈNE TISSERANT	341
TECHNISCHE LITERATUR IN DEUTSCHEN BIBLIOTHEKEN		
	PAUL TROMMSDORFF	344
HEIGHTS OF BOOKS IN RELATION TO HEIGHT OF STACK TIERS		
	HENRY B. VAN HOESSEN AND NORMAN L. KILPATRICK	352
THE CONTRIBUTORS TO THIS ISSUE - - - - -		358
THE COVER DESIGN - - - - -	EDWIN ELIOTT WILLOUGHBY	366
BOOKS RECEIVED - - - - -		367

82

85

96

100

106

114

115

129

134

141

144

152

158

166

167



JAMES CHRISTIAN MEINICH HANSON

THE LIBRARY QUARTERLY

Volume IV

APRIL 1934

Number 2

JAMES CHRISTIAN MEINICH HANSON

JAMES CHRISTIAN MEINICH HANSON was born in Norway on the thirteenth of March, 1864. Sørheim, his birthplace, in the district of Nordre Aurdal, lies in the Valdres valley one hundred and fifty-eight miles northwest of Oslo, in a region well known to travelers for its impressive scenery. In the household of his father, a government official, were eight children, five daughters and three sons, who passed their childhood under the wholesome conditions of Norwegian middle-class life. The home was dominated by traditions of sobriety, literary culture, piety, and industry. It was also typical of the period in having American connections. A half-brother of the mother had gone to Iowa and his letters described the social, economic, and educational opportunities that were open there in the Norwegian settlements. Accordingly, at his invitation, the family decided in 1873 to send Jens, the eldest son, to enter the preparatory department of Luther College at Decorah, Iowa. Though he was only nine years of age he could travel with a clerical friend, the Reverend O. Hjorth, who was returning to America after a visit home. The plan was that after four years of American schooling the boy should return to Norway and prepare for a business career. But instead of this he gradually acquired new interests and new ambitions and secured his parents' permission to complete not only the preparatory but also the collegiate course at Decorah. He received his baccalaureate degree there from Luther College in 1882, at the age of eighteen.

Dr. Hanson's recollections of the process of his Americanization are tinged with both humor and sadness. His account of his early struggles with a new vernacular, of the hazing customs of the students, and

of the local political prejudices of the time are highly amusing. Of a different nature, however, are his memories of the cultural metamorphosis undergone by his people. When he entered college most of the textbooks, class exercises, and campus conversation were still in Norwegian. Before his graduation a change had set in, and today the speech of his mother country is seldom heard in these places. He regrets that the literature, history, and tradition of their fathers should have been so completely lost by the new generation, for he believes that the best of the national cultural characteristics might have been kept and incorporated with the new civilization in the land of their adoption.

After his graduation from college, young Hanson spent several years finding himself and his true vocation. At first he planned to try his fortune in the new settlements of Dacotah, though his entire capital consisted of only thirty-five dollars and his clothes. But on the evening before his departure an accidental meeting with the Reverend U. V. Koren, president of the Norwegian Lutheran Church, changed his plans. This gentleman persuaded him to enter Concordia Theological Seminary at St. Louis. Here he studied for two years, but, feeling no particular call to enter the ministry, he turned to teaching, in Chicago. In 1888 he entered Cornell University as a graduate student, where he remained for two years, in the second year holding the Andrew D. White fellowship in history. He pursued his studies under President White, Charles Kendall Adams, Moses Coit Tyler, Herbert Tuttle, George Lincoln Burr, and Elisha Benjamin Andrews. Incidentally, he was pitcher on the University baseball team, and an active member of Kappa Sigma fraternity. But by the summer of 1890 his funds were nearly exhausted so he turned again to earning his livelihood. He had a choice between an instructorship in an Arkansas college, where his teaching of history would be combined with duties as a baseball coach, and an appointment on the staff of the Newberry Library in Chicago. With the selection of the latter position he entered upon his career in librarianship which has continued without interruption to the present.

In 1890 the newly organized Newberry Library was headed by Dr. W. F. Poole, a veteran librarian, and on the staff were several of the graduates of Dr. Dewey's first class at Columbia—George Watson Cole, George Wire, Edith Clarke, and somewhat later, Charles A. Nelson. From his chief and from these associates Hanson learned the rudiments of professional techniques, and he worked through various positions in all of the departments except that of book selection and

purchase. But his interests were quickly centered upon the processes of classification and cataloging.

In 1893 his former teacher at Cornell, Charles Kendall Adams, then president of the University of Wisconsin, asked him to serve as chief cataloger in the library of that institution. Hanson accepted the appointment and held it for four years, thus widening his experience and penetrating more deeply into the problems of library organization.

In 1897 a call came for him to become chief of the Catalog Division in the Library of Congress, again through a connection originating in Cornell University. President White recommended him at the request of the new librarian, John Russell Young, a former newspaper man and a friend of President McKinley. Dr. Hanson is fond of pointing out how large a part was played in his appointment by political considerations; the mid-west did thus receive recognition, but the accomplishments of his thirteen and a half years of service in Washington demonstrated that he also possessed the necessary professional qualifications. When he joined the Library of Congress, it was about to move from the Capitol to the new building which it still occupies. With the removal, the staff was to be enlarged and the whole institution completely reorganized. No one who did not participate in the complicated process would now venture to designate any specific feature of the present Library of Congress as the work of a particular man, but it is universally recognized that Dr. Hanson's contribution was always a major factor. Certainly it was under his leadership that the distinctive classification system was permanently formulated and the present cataloging practices established.

In 1910 when the University of Chicago undertook to reorganize its library, Dr. Burton, the director, asked Hanson to serve as his associate and take charge of the actual work. Though this problem of reorganization was generally recognized to be the most complicated that had yet confronted American librarianship, Hanson's experience in the foundation of one great library, and in the rehabilitation of two others, had prepared him adequately for the task. He assumed charge of the University of Chicago Libraries and remained there for eighteen years, first as associate and finally as acting-director.

But inevitably, when in 1928 a Graduate Library School was established at the university, he was asked by its first dean, Dr. Works, to become the first professor on the new faculty. Almost immediately he was given leave of absence to aid in the reorganization of the Vatican Library in Rome, under a grant from the Carnegie Corporation. Upon his return to America he devoted himself to the problems of the new

school and also served as chairman of the Editorial Board which later established the *Library quarterly*. So far as his teaching duties in Chicago made it possible, he has served as visiting professor in other institutions: he has lectured and conducted seminars on cataloging and classification in the University of Michigan Library School and at the School of Library Service of Columbia University. During the winter of 1931 he spent five months as consultant on the staff of the Library of Congress.

Throughout his professional career Dr. Hanson has participated in many movements for the welfare and advancement of librarianship. His best-known contributions here are the agreements on catalog rules which he negotiated, first between the libraries of the United States and Canada, and later between the British and American associations. He was the American delegate to the conference at Glasgow in 1907 when the final agreement was ratified. He was also the compiler and editor of the first *Rules*, printed in 1908, and is a member of the present committee to prepare a new and revised edition. In addition to these special services he has played a leading part in more general library discussions. The minutes of the Bibliographical Society of America and of the American Library Association and its committees record numerous instances where his remarks by their clarity, their sound sense, and their regard for principle and order, have cleared a way through a confusion of technicalities and argument to a decision that was rational and practical.

Dr. Hanson's achievements have received public recognition: Luther College conferred on him an honorary doctorate in laws; Fanitulen, a society of Oslo, awarded its "Storkors," and the Crown of Norway appointed him Commander of the Order of St. Olav of the second class.

With his retirement this year under the faculty age limit of the university he will go with Mrs. Hanson to his rural home near Sister Bay in Wisconsin, thirty-six miles from a railroad. In this he seems to find a mystical significance for the typographical error of one Norwegian-American journal which entitled him not "Emeritus" but "Eremitus." But however remote the place of his hermitage, he cannot withdraw himself, wholly, from American librarianship; through those who worked under him and through the practices which he established the influence of his personality will still remain active.

PIERCE BUTLER

GRADUATE LIBRARY SCHOOL
UNIVERSITY OF CHICAGO





MR. HANSON AS A STUDENT AT CORNELL



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DILEMMAS OF CLASSIFICATION

CLASSIFICATION of books in libraries has for a long time been a subject of controversy among librarians on the one hand and between librarians and the more critical part of the readers on the other. The bulk of the books in most libraries are satisfactorily classified, so that the orientation of the readers in the shelves will be relatively easy. But in spite of this fact, there will always be somebody to question the classification made in almost any field of knowledge.

The most annoying critics, particularly in university and college libraries, are those from the professorial staff. They are inclined to criticize the classification of almost any subject within their field and condemn in general the scheme followed as unscientific and wrong. They represent expert knowledge in their particular field but generally do not know the considerations involved in a universal classification for a general library. The unfortunate classifier usually is willing to take advice from the experts, but he often finds himself involved in conflicts when he listens to them, and the balance and consistency of his classification may be entirely disturbed as a result.

But these difficulties arising from direct criticisms from outside are mere trifles compared to those due to the complexity of the problem itself. These difficulties are most strongly felt by classifiers working with a preconceived system of classification, where pigeonholes are supposed to be prepared for every conceivable subject. For every five books which may be easily fitted into this preconceived system there will be at least one which presents difficulties in the way of its smooth accommodation into the nicely constructed compartments.

Too many things have to be considered in one subject to be classed, and frequently they are in conflict, with the result that a wholly satisfactory solution of the problem appears impossible. Although a perfect classification of a number of definite, clean-cut, and unambiguous concepts may be difficult, a complex of correlated and interconnected things is still more so. Classifiers of books have to do with the variable, kaleidoscopic constellation of topics represented in different works at different times, and there will always remain a feeling of dissatis-

faction, however one may turn his subject to fit these topics into the compartments of his scheme.

This feeling undoubtedly will prevail among conscientious classifiers, at least in large libraries, which have to battle the steadily increasing flow of new books with new viewpoints, new aspects, new theories, and new comprehensions that at any time may revolutionize the concepts prevailing in any field and turn upside down the laboriously established order. And this feeling will be particularly strong in libraries working with a scheme of classification already established in every detail. Such a scheme may be felt a strait-jacket, preventing the natural growth and extension as need arises.

Classification is essentially a practical expedient to master a multitude of details. The aim pursued is an orderly arrangement of things so that each one of them can be found when needed. To this end those things which are alike are grouped together, and those which are different are separated. But the problem is not solved by the separation of different groups. A definite sequence of groups is also necessary, and a proper correlation of them must be made—establishing a natural progress from one group to the next with the contents most like or most related to the first, and so on through the entire series of things or material to be arranged.

"Man is a classifying animal" says Otto Jespersen in some paragraphs on the classifying instinct. And, in fact, classification is the basic principle of organized knowledge; it is the indispensable premise of man's orientation in the bewildering multiplicity of things, facts, processes, and relations in the world surrounding him and the thoughts, ideas, and concepts of his own mind. This mental operation is applied by man every day, and more than anywhere else this method is systematically applied in scientific work, where facts, observations, and experiences are constantly registered, enumerated and evaluated, correlated and classed to bring order out of chaos.

But the classification of the concepts of the mind and the orderly arrangement of books of every description are problems fundamentally different in practice, though closely related in principle. We have definite ideas of various sciences and different fields of knowledge, some of which we know fairly well, others less so. We have also more or less definite ideas of how these various sciences are correlated, but most of us would find difficulty in presenting an accurate statement of their relative importance and an unquestionable representation of their relative collocation except for that limited part which we even-

tually know thoroughly. But somehow there is a feeling that such a definite correlation of all things and concepts of human experience and knowledge exists, a natural order of things which should be self-evident and logical when once it has been found.

It is the task of science to put everything in its proper place, and it is a problem of philosophy to establish this natural order of things and co-ordinate the facts of human knowledge into one global system. This problem is something more than the external enumeration of material things and mental concepts. It is an organic and systematic co-ordination of related, associated, and subordinated concepts and ideas. In its final result this philosophical classification is a pure abstraction, in which all the small concerns and petty problems of everyday life will dwindle away.

Such an attempt at a universal philosophical classification has been made by Paul Oppenheim in *Die natürliche Ordnung der Wissenschaften*.¹ His excellent presentation of the problem indirectly illustrates most strikingly the difference between this philosophical, metaphysical synthesis in abstract classification and the concrete needs of actual classification which shall serve general orientation. In practical classification the myriads of things and facts cannot be sublimated into an abstract speculative *Gedankensystem*. Practical classification has to take care of all the details and somehow provide a place for every definite subject. But in spite of the extremely abstract character of this system of Oppenheim, his analysis of the problem is very instructive and in many ways may be helpful in the solution of actual problems.

But any system of classification for practical purposes must agree with commonly established notions and ideas of the correlations of things, and consequently ought to conform to the latest developments in science and general knowledge on the whole. It has to take care of the ever-proceeding differentiation and specialization in every field, to embody the whole structure of science and knowledge in the most comprehensive sense of the word.

An encyclopedic system of classification taking in the entire field of human knowledge first of all has to determine the mutual correlation of the various fields of knowledge and establish a definite sequence of sciences. This is a matter on which two would seldom agree entirely, since it is dependent on the principle which is made the basis of their classification. Consequently the sequence must be determined arbitrarily, and the order eventually established by convention. This

¹ Jena: G. Fischer, 1926.

really would not matter very much since no one is able to embody more than a limited field at any rate, and for practical purposes it is more important that the various branches of science are well defined and clearly delimited, so that one can easily reach the section he wants to examine without bothering with irrelevant matters.

Of much more importance is the fact that this dilemma repeats itself at almost every step of the classification, viz., in classifying complex subjects different features, characteristics, or properties may be selected as the basis for the classification with a different order resulting in each case.

The natural sciences undoubtedly offer the best examples of a well-established order of things with clearly defined classes, subclasses, genera, families, and species, based either on external, descriptive characteristics or phylogenetic relations. But the order established on the basis of descriptive features does not always conform to the one determined by phylogenetic relations. Still more complicated is the problem when practical applications, geographical distribution, and eventually economic utilization enter into consideration. Consequently, a different order of the same things may be established and justified according to which considerations are made the basis of the arrangement; and the same elements, recognized as integral parts of a definite part of the system, may be justly rearranged in the most kaleidoscopic constellations for different purposes.

In chemistry all the elements by now are recognized, determined, and grouped in a definite and beautiful system that will hardly need any rearrangement and which enables the definite classification of any substance of known composition. By means of the chemical alphabet, the order of which is determined by the atomic weights, every compound may be referred to a definite place in the system. But even here, on account of the large number of actually known and possible, but yet unknown compounds, doubt and embarrassment may arise when several components are involved (cf. organic chemistry).

The problem is really perplexing when not only the chemical composition is considered, but the physical and chemical properties of the substances are investigated. Then a new arrangement is called for, based on these properties, and our compounds are scattered in different groups. Is it our subjects which interfere with different classes or groups, or is it the classes which overlap and coincide?

Who can really tell where the borderline is between physics and chemistry, what the difference is between chemical physics and physi-

cal chemistry? They both have well-defined fields of operation, but they certainly fuse imperceptibly into each other. One may pass from the one to the other without noticing it. The borderline between them must be set arbitrarily, but actually the two branches of science have large fields in common.

A problem: Where are we to class an investigation of "the reciprocal reaction of mixed halogenides among the elements of the middle group of the periodic system," and one on "the basic frequencies of molecules of the type xy_4 : mixed halogenides"? The one is decidedly a chemical investigation of reaction processes in a definite group of compounds; the other one is a spectrographic examination of the structure of the molecules of the same group of compounds, and as such is decidedly a physical problem. The subjects of the two investigations are to a large extent identical, the results coincide almost entirely, or at least to such an extent that the two authors are disputing over the priority. Nevertheless, the problem has been attacked by them from different points of view, even with different aims in view, and in any case through different methods. The one probably is physical chemistry, the other one perhaps chemical physics. According to the two systems of classification most in use in America, the one would go into physics, the other into chemistry. But the walls of our pigeon-holes are smashed to pieces by the incessant bombardment of radiations from the restless atoms oscillating between our nicely built-up compartments, all of which want to occupy the same space in our system.

The problem is even more complicated when not only descriptive characteristics and immanent properties are to be considered, but their applications also—and even more when the complicated correlations of different things as met with in everyday life in modern society are at play. Then we cannot avail ourselves of the privilege of the scientist who can detach his object from its soil and consider it *in abstractum*.

We may mention such a common liquid as water: How many different classifications may be justly applied to this fluid which the man in the street considers as one of the simplest things of the world?

The chemist will determine it as a compound of hydrogen and oxygen and put it in one of the prime places of his chemical alphabet. The physicist will consider it as a form of matter susceptible to the influence of various physical agencies, e.g., heat, that will assume different phases—solid, liquid, or gaseous, according to the temperature

to which it is exposed—and consequently register his investigations in theory of heat. Or when treating of its mechanical properties he will register it in hydrodynamics. The geologist knows water as one of the agencies forming the surface of the earth, and the hydrologist will search it above and below that same surface, while the civil engineer will catch it and store it in his dams and barrages to lead it into channels, tunnels, and pipes, to be used in households and power plants for the most varied purposes. The hygienist and public health officer will consider it as a most impure liquid to be filtered and purified and chlorinated and otherwise treated in many different ways before it ought to be used, while the sanitary engineer seems as busy in trying to lead it away in sewers to prevent detrimental effects from its accumulation in wrong places.

To the man in the street water is just water. To some experts at least it is also an entity, one concept, but with as many colors in its spectrum as it has different properties, relations, and applications. To the classifier it is a chameleon on a multicolored surface on the point of bursting from the tension provoked by the many colors. Because of the abstraction involved in his system, he has to scatter his subject in many different classes, i.e., he has to consider the properties, relations, and applications as independent concepts, detached from the medium carrying them, as a subject for treatment by as many different experts, and consequently belonging in different fields of knowledge.

But such complex, multifaced subjects are met by the thousands in any large library, sometimes treated separately in a number of different investigations of the different phases of the subject, but frequently in comprehensive treatises on the entire subject. For example, what about Paul Sommer, *Handbuch der Milchkunde*? We would guess at dairy farming as the most proper pigeonhole to put it into. But an examination of the book reveals extensive chapters on physiology, biochemistry, public health and hygiene, food chemistry, food conservation, sterilization, milk trade, charity, and baby nursing—all subjects which are widely scattered in any systematical classification which tries to conform to commonly established ideas of the divisions of sciences. Are we to pick our book to pieces and scatter it in the various places in the system where the different parts belong, or are we to put it into one of them which will do justice to only a minor part of the contents?

Similar specific topics, intersecting a number of our different classes

and divisions can readily be stated by the hundreds. We may mention iron, coal, oil, wood, housing questions, not mentioning such complexities as countries, states, or other geographical, national, or political units with the most bewildering conglomerate of subjects pertaining to them.

Then let us turn to another field: Who would ever think of any relation between linguistics and physics, or to be more exact, between phonetics and acoustics? Certainly not the layman, but most decidedly the phonetician. The professional linguists have long since made wide applications of the instruments and methods of the physicists to measure the vibrations of speech sounds, to determine the exact wave number of each sound, and the form of the resonance tube when emitting those sounds. Some of the phoneticians seem to have reduced their science to pure acoustics. But now, what about the electricians, the communication engineers—would anybody suspect them of intruding into linguistics? It is a fact, however, that in recent years a number of phonetic studies have been issued from the Bell Telephone Laboratories in New York, where they have been undertaken from purely practical reasons to investigate the distortion to which the various sounds are subject when transmitted over the wire or broadcast by radio waves.

Then let us present a problem of a different type: Here is an investigation of "The Size of the liver of some bone-fishes, their contents of fat and Vitamin A." It is a group of fishes which are examined, belonging in systematic zoölogy. But the entire animal is not considered. It is the liver only, placing it therefore in the zoötoni. But the investigation has been undertaken to determine the content of fat and vitamins; thus it becomes a *biochemical problem* with the definite purpose of determining the usefulness of the liver for alimentary purposes and the extraction of animal fats. Therefore it belongs in "Chemical technology, oils and fats."

The subject is definite, limited in scope, and extremely specific. But it represents a convergence of a number of lines, an intersection of many fields at one single point. How shall a pigeonhole system take care of this problem? Where are we going to put it, how are we to communicate to everyone interested the existence of such an investigation through a rigid system of classification? Any special library and any large library will have studies of this type by the thousands, and the more specific they are, the more entangled they will appear when they are to be fitted into a general scheme of classification.

We hardly dare venture into the terrible mess which modern physics has brought into the prevailing systems of classification. Comprehensive treatises on radiation, wave-mechanics, and similar fundamental concepts have either to be stored away in a modest subdivision, or are otherwise scattered in widely separated groups; emission and radiation in optics, X-rays, cathode rays, canal rays in electricity (sometimes in optics), alpha-, beta-, and gamma-rays in molecular physics, etc.

Many more examples might be given of how involved and entangled the problems are. We may have a clear mental picture of the correlations of these and many similar matters. We may imagine the various subjects distributed in a definite way around a central nucleus of main concepts. But to represent our conception of this distribution we would need at least a three-dimensional system or even a four-dimensional, if we had the mental power to conceive such a matter. But for practical purposes we are reduced to the linear course, mentioning one at a time. Consequently, there must be several breaks in the natural sequence in enumerating them.

Many attempts have been made to visualize this three-dimensional distribution graphically. The simplest method and the one most commonly applied is the genealogical tree with a main trunk from which branches and twigs are ramifying into the most detailed network of subordinated divisions. This method is a poor medium to represent the numerous correlations of subjects and associations of subjects from widely separated branches of knowledge, not mentioning the arbitrary sequence of the various branches.

A more adequate and comprehensive picture has been given by Wilhelm Ostwald in his *Pyramid of sciences*² which distributes the various fields of knowledge in a three-dimensional system. He is operating mainly with the pure sciences, however, though he conceives his system as comprising the entire field of knowledge. At the base of his system is a low cylinder of wide circumference representing general or universal concepts in *Die Ordnungswissenschaft* or "science of classification," applicable to all branches of knowledge. A superstructure of concentric cylinders with decreasing circumference toward the top of the pyramid represent the different steps in the system, different fields of knowledge with decreasing generality and increasing complexity toward the top. Ostwald gives the following sequence of the main

² *Die Pyramide der Wissenschaften* (Stuttgart u. Berlin: J. G. Cotta'sche Buchhandl. Nachf., c. 1929).

divisions: "Principles of classification," "Formal logics," "Mathematics," "Pure mechanics," "Physics," "Chemistry with crystallography," "Geology with paleontology," "Biology," "Botany," "Zoölogy," "Man," "Physiology," etc. He has not carried his specification further, however.

But the interesting thing about his system is the way he imagines the correlations and interferences of the various divisions: He does not conceive of the subject matter as distributed only on the surface of this pyramid, but throughout the entire order. The various horizontal layers represent the different branches of sciences. The vertical cylindrical surfaces of the upper cylinders he projects on to the base of the pyramid, each one of them thus intersecting the underlying layers. It will easily be seen, then, how the various fields have large areas in common, and we can understand at a glance how a large number of subjects are physical and chemical at the same time.

Provided, then, that the distribution of the various divisions were definite, that the relative location of the different fields of knowledge were absolutely established, the location of any particular specific branch could be indicated exactly by a system of co-ordinates, or, indicating the concentric cylinders with letters from A to Z, the intersection of any two of them would be exactly determined by the letters of the intersecting cylinders, e.g., E—Physics, G—Chemistry, EG being physical chemistry, H—Biology, L—Man, HL or LH—Biology of man, GH or HG—Biochemistry, etc. The detailed subdivision of the various main branches eventually could be indicated by Arabic figures denoting arc lines on the circumference of the cylinders.

We would get a still more perfect picture by replacing the pyramid with a hemisphere. This would give a better idea of the gradual transition from one field to another without definite borderlines. Borderlines must be marked, certainly, but here as in most other cases they would have to be set more or less arbitrarily. But let us stop here before we fall into entirely futile speculations, or too subtle *Gedanken-systeme!*

The *Pyramide* of Ostwald at least gives a comprehensive picture of the relations, even though it be too general for application for detailed classificatory purposes. But we may cut out of the pyramid such sections which represent fairly well established relations and magnify them, retaining the idea of three-dimensional distribution. Some nice graphs of such three-dimensional arrangements of facts may be found

in G. Schmaltz, *Die Methoden des Ordners*.³ Even if none of them are applicable to our practical purposes, still, for comprehensive synthesis or preliminary synopses, they are most illustrative and helpful to our comprehension and may at least serve to reconcile the impossibility of establishing the unquestionably one and only natural numerical sequence of our elements.

This picture does not contradict the possibility of a definite natural order. On the contrary, it confirms this possibility, though we do not know the exact correlation in every detail. But being reduced to following the linear course in enumerating the detail of this order, we are forced to give them by jumps and innumerable breaks in the continuity.

It may further be stated that almost any particular subject is doubly determined or defined by even more characteristics, each one referring it to a different field of knowledge, and various branches of science may have a number of subjects and large areas in common. This is illustrated clearly by our pyramid or any other three-dimensional system. But in practical classification we have to specify those elements which two different branches have in common, by mentioning them under each.

In comparative linguistics, for example, we have a number of specific subjects which belong to this field of knowledge in general, a number of variations and differentiations in the various national or ethnic groups of languages. We have the geographical or ethnic distribution of languages or language-families with a number of different features characteristic of each of them. We have the comparative studies of specific topics—like a cross-section through them. The one may be represented by vertical co-ordination of relative things, the order as a horizontal layer intersecting them. But the same elements are common to the two different orders, and in our linear enumeration we have to specify each of them twice.

Next we have the complex subjects with elements from different fields of knowledge. Recurring to the *Pyramide* of Ostwald we may imagine such a subject as a string or bar in one of the upper and inner cylinders, representing the more complex fields. Imagining this string or bar, e.g., representing "milk," running through the various underlying layers, we will see at a glance how it cuts through the different

³ *Die Methoden des Ordners und ihre Anwendung auf technische Zwecke* (Berlin: Verlag des V.D.L., 1920. V. D. I. Forsch., arb. H. 223).

divisions, and in turn is illuminated by them. But in our linear system applicable for practical purposes it cannot be properly taken care of but through scattering the various phases into the different divisions involved.

It will also be seen from the picture that even though every subject is definitely determined, the subjects may be grouped together differently according to which one of them is made the nucleus of our constellation, and which ones actually are included in our particular collocation. The mutual collection of the elements included may be definite, but the sequence in a consecutive specification necessarily must be arbitrary.

Any numerical sequence whether of classes, divisions, or the elements or particular subjects belonging to any one of them consequently must be conventional, even though the most rigid local system is governing the actual distribution and correlation; and the only satisfactory clew for orientation for those who do not know the convention is the most illogical method of all: the alphabetical order of the names we have given the classes, divisions, and the concepts and subjects included in them!

The duplication or multiplicity of characteristics of most subjects would require a duplicate or multiplicate classification of most any of them. When represented by books, one book cannot be located in more than one place. Having more than one in a particular subject, they may easily be separated into different groups on account of this variety of aspects, a result which is just the opposite of what we want to attain.

In our classed catalog we may avoid the dilemma by giving alternative classifications, selecting one of the possible places for the location of our subject but providing a second entry under the other heading with reference to the first. But this expedient is rather expensive and would tend to inflate our card catalogs to the danger point.

Somehow there is a feeling that it should be possible to reconcile the conflicting classifications. There are, after all, some logical principles almost with the character of general laws governing these matters. But they have not been clearly recorded. The two schemes of classification prevailing in the United States are both abundantly provided with innumerable pigeonholes for specific subjects, but no general principles are given—with the consequent scattering of related material into different groups. Just this abundance of possibilities counter-

acts the very purpose of the classification, particularly when it is performed mainly as "index-classification."

These scattered reflections need a conclusion. The one most near at hand is to state the desirability of a commentary to the Library of Congress, the Dewey, and the Brussels classifications giving general principles and definite rules and decisions on fundamental problems in classification. Merrill⁴ has given such a code in embryo, but it occupies itself more with individual problems than general principles. Perhaps Bliss⁵ gives us what we are wanting. But his book had not reached Norway at the time this was written.

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TEKNISKE HØISKOLE
TRONDHEIM, NORWAY

⁴ Wm. Stetson Merrill, *Code for classifiers* (Chicago: American Library Association, 1928).

⁵ Henry Bliss, *The Organization of knowledge in libraries and the subject-approach to books* (New York: H. W. Wilson, 1933).

HOW NORWAY BECAME THE FOCUS OF AMERICAN LIBRARY METHODS IN EUROPE

THE modern library movement in Norway dates back to the nineties of the last century. Of course, we had public libraries a hundred years before that time, but they were all poorly equipped and essentially different from their successors of today. At long intervals they flared up as a result of the activity of some enthusiast like Henrik Wergeland, the poet, about 1830, or Eilert Sundt, the sociologist, a short generation later.

In the early nineties a new and very active advocate for the library idea arose in Norway—H. Tambs Lyche. He was born in Halden in 1859 and had spent the years 1880-92 in the United States, first as a civil engineer, afterward as a Unitarian clergyman, being the whole time a very fervent admirer of the public libraries and kindred educational activities.

He returned to his own country in order to be the editor of *Kringsjaa*, a new monthly which was started in 1893 on the lines of the *Review of reviews*. The new periodical maintained a high standard and proved to be a first-rate instrument for propagating the ideas of the editor. One of his leading articles in the first volume was devoted to the public-library movement, and later on he constantly returned to the same subject. Outside his own editorials I need only quote the following papers, translated from foreign sources:

Vol. IV. J. L. Harrison, "The Library movement in U.S.A." (*New England magazine*). W. I. Fletcher, "The Library movement in U.S.A." (*Cosmopolitan*)

Vol. VI. "The American free libraries" (*Forum*). "A Modern library: Boston Public Library" (*New England magazine*)

Vol. VII. "Library methods. Classification and shelf arrangement." "Library methods. The card catalogue." "A Public library in a little town [Salem, Mass.]"

Vol. IX. J. C. Dana, "The Public library—the people's library" (*Popular science monthly*)

Vol. X. W. B. Shaw, "Travelling libraries" (*American review of reviews*)

Vol. XI. Herbert Putnam, "Free public libraries" (*North American review*)

Many of our leading men in politics and education at that time used to read *Kringsjaa*, and it has been proved that several of them became interested in the library movement in that way.

The first sign of the new interest was the founding in 1896 of "Kristiania Public Libraries," a private society, intended to run lending libraries and reading rooms for the working-class and common people. The founders contrived to establish some libraries without having to resort to public support. The whole enterprise was indeed meant as a protest against "the strong tendency of our time to put everything under public management."

However, the foundation of these libraries with their suggestion of charity by no means agreed with the ideas of Mr. Tambs Lyche. He communicated with two librarians from the University Library of Oslo, Karl Fischer and J. B. Halvorsen, who shared his views, and jointly these three men worked out in 1896 a plan for the reorganization of the old city library of Oslo, Deichmanske Bibliotek.

The plan was roughly drawn and in no way revolutionary, but it could apparently be carried through without placing heavy burdens on the municipal revenues. A grant of kr. 18,000 (\$4,800) for initial expenses and kr. 16,000 (\$4,300) for the annual management was considered sufficient to procure a central library with four branches for a city which then numbered some 190,000 inhabitants. However, the plan indicated the right line of action and was approved by the city authorities in May, 1898, some weeks after the death of Mr. Tambs Lyche.

The task of reorganizing the library was placed in the hands of Haakon Nyhuus. Mr. Nyhuus had recently returned from Chicago, where for seven years he had been employed in the Newberry Library under Dr. Poole, and in the Chicago Public Library. In the Newberry Library he worked in the cataloging department with James C. M. Hanson, who has given a very vivid picture of his fascinating personality in the Christmas number, 1932, of *Deichmanbladet*, the house organ of the city library of Oslo. Haakon Nyhuus went to the Chicago Public Library to take over the position as head of the cataloging department, his first assistant being Carl B. Roden, now chief librarian.

Early in spring, 1898, Haakon Nyhuus went back to Oslo, where he had friends from his merry university life some ten years before. As the question regarding the library was not yet decided, he obtained

some temporary work in other libraries, but took part at the same time in the public discussion in favor of reorganizing the old library.¹

As soon as this question was decided, Mr. Nyhuus was commissioned by the magistrate and the board of trustees to take charge of the reorganization. He set to work with an enthusiasm which seized his assistants, none of whom had worked in a library before.

The first months were devoted to book selection and cataloging. At that time nothing like Norwegian cataloging rules existed, although the common continental practice was as a rule observed in the libraries and in the bibliographical literature. Haakon Nyhuus broke with this practice when he introduced the American rules.² The method was later somewhat amended to conform with the Anglo-American rules of 1908, which form the basis of the Norwegian cataloging rules of 1925,³ now generally accepted by our leading libraries.

Mr. Nyhuus did not only import the cataloging rules from the United States, but also the cataloging equipment—L. B. standard cards (7.5×12.5 cm.) and card cases. Card catalogs were by no means unknown in the continental libraries in the nineties, but the general opinion demanded far larger cards than the standard ones. Besides, different sorts of loose-leaf systems, sheaf catalogs, etc., were in vogue. The Deichmanske Bibliotek numbered some 34,000 volumes when Haakon Nyhuus was appointed librarian. The books were roughly divided into a few main classes without call numbers. The new librarian did not change the old shelf arrangement very much, but he indicated the main classes by capital letters (A = Fine Arts, G = Geography, H = History, etc.) and gave the individual books skipping numbers according to a rather primitive scheme. The arrangement worked satisfactorily in so far as it made it possible to get the modern part of the collection quickly ready for use, but in the long run it did not meet the demands of a growing collection.

The drawbacks of the system were soon so evident that abandoning it altogether for a better one was seriously considered. After some hesitation the Decimal Classification of Melvil Dewey (with Cutter's

¹ Haakon Nyhuus, "Offentlige kommunale bibliotek eller private folkebibliotheks-selskaber?" *Ringeren* (No. 13, 1898).

² Charles A. Cutter, *Rules for a printed dictionary catalogue* (3d ed., Washington, 1891).

³ *Katalogiseringsregler for norske biblioteker. Utarbeidet av Norsk bibliotekforenings katalogkomite* (Oslo, 1925).

author marks) was chosen, at first (1900) only in cataloging the older part of the collection, later on (1903), throughout the library.

It was a rather daring experiment. With due regard for its great merits the Decimal Classification was even farther from the European chain of reasoning than the Cutter cataloging rules. With regard to sixteenth- to eighteenth-century books it may safely be said that the introduction of D.C. was an act of violence. On the other hand, among the many classification systems from the last century very few were complete or adapted to practical purposes. None of them could compete with the D.C. as to convenience of notation.

In regard to book distribution, in the beginning Mr. Nyhuus did not act on the American patterns. The old charging ledgers in book form had been given up before his time, but he exchanged the established slip system with another of English origin. During a short stay in England in 1900 he became acquainted with the American Browne system, which he introduced upon his return. Some years later (1908), the Browne system was also abandoned on account of its slow operation at the delivery desk. It was replaced by the Newark system, which at that time was already in use in other Norwegian libraries.

Not even in the lending process did Haakon Nyhuus at first alter the old system very radically. He retained a long counter between the borrowers and the books, which could not be had without applying to the assistants. A part of the counter was reserved for cases three shelves high, where the most popular books were kept behind screens, their backs to the readers, who thus could examine the gilt titles through the screens, but could not take the books in their hands.⁴ This form of "safeguarded open access" was still in use in some of the children's rooms of the library when Mr. Nyhuus died in 1913, but had long been changed in other parts of the library (since 1908) to the common American form of open shelf.

Very soon Haakon Nyhuus established a number of delivery stations, but it was several years before the first branch library could be opened. Like the main library, it was in rented quarters ("Eastern Branch," 1906). A rather interesting plan of 1901⁵ proved to be a castle in the air.

As to borrowers' registration, overdues, rules and regulations, ac-

⁴ Haakon Nyhuus, "A Norwegian form of safeguarded open access," *Library journal*, XXV (December, 1900), 728.

⁵ Haakon Nyhuus, "A Norwegian branch library," *ibid.*, XXVI (December, 1901), 864.

cession methods, and other particulars, he took his models from many sources, but even here American methods prevail.

Haakon Nyhuus possessed plenty of common sense and administrative ability, and his work developed very successfully. The circulation of books rose within a few years to a height that none of the other libraries in Scandinavia could boast of—from 25,000 volumes in 1897 to 174,000 in 1899, 319,000 in 1900, and so on. In 1905 "Kristiania Public Libraries" turned over their collections, which were not very valuable, to the happy competitor; the home circulation of which the next year surpassed 520,000.

The reorganization of the Deichman Library had a stimulating effect far beyond Oslo and prepared the ground for the development which since then has taken place in Norway.

Also, the organization of the government-supported libraries in Norway is mainly due to the initiative of Mr. Nyhuus.⁶ We had at that time about 750 small libraries scattered all over the country from North Cape to Lindesnes, a distance of about 900 miles. In order to make the libraries more effective without increasing the expenses, in 1902 they were consolidated into one union under a bureau of the Department of Education. Haakon Nyhuus was attached to that bureau as technical adviser, 1903-6, and carried out the planned centralization of book selection, book-buying, cataloging, binding, etc. By this procedure the American methods gained footing even in very small libraries.

Among our greater towns the first which secured a public library of the new type was Trondheim, where Kristian Koren, later master of the rolls, was the organizer. Thorstein Jahr of the Library of Congress was appointed librarian, but since he withdrew, the task of carrying out the plans fell into the hands of Miss Martha Larsen (now Mrs. Jahn), formerly of Deichman Library and New York Library School. She came fresh from the school to the new work and succeeded in bringing about a very good library in conformity with the Deichman Library, but perhaps even more Americanized. At any rate, the Trondheim Library introduced regular open access and the Newark charging system in Norway.

The Bergen Public Library was the leading one among our public libraries before 1898. The librarian, Miss Valborg Platou, kept brave-

⁶ Haakon Nyhuus, "The Organization of state-supported libraries in Norway," in *American Library Association Papers and proceedings of the meeting held at St. Louis, 1904*, p. 60.

ly to the old methods with a single exception in that she introduced the Browne charging system in 1901. Otherwise her only connection with the United States was limited to the Norwegian consul in New York, Christian Børs, who contributed to the building fund of her library. Heavily pressed by her board, she at last, in 1909, gave way to open access and Dewey-Cutter. The introduction of those systems was at first confided to Miss Bolette Sontum, who was trained as a children's librarian in Pittsburgh and had some experience as branch librarian at the Deichman Library. When Miss Platou retired at the beginning of 1910, the task of reorganizing went over to her successor, Arne Kildal, formerly of Albany (1905-7) and of the Library of Congress, where he had been working in the Catalog Division under Mr. Hanson. It became the task of the new librarian in Bergen from 1914-17 to erect the library building, which his predecessor for many years had been contemplating. The drawings, by one of our foremost architects, Olaf Nordhagen, were approved by the town council. They showed a very charming exterior and a very old-fashioned interior. Mr. Kildal succeeded, thanks to the understanding of the architect, in transforming the extensive indicator-rooms and other failures of the plan to modern demands without damaging the appearance of the building.

It is not necessary here to name all our principal public libraries. They are all today molded in similar forms and cannot deny their debt to America, even if their independence of the great model country is growing daily.

Something similar can be said of many of our special libraries: the Library of the State Technical College (*Norges tekniske høiskole*) at Trondheim, the State Agricultural College at Aas, of the Patent Office, of the Ministry of Foreign Affairs, of the Central Bureau of Statistics, etc. Some special libraries have adopted the expanded Decimal Classification, for instance, the Norwegian Nobel Institute, which founded its library in 1904 with Mr. Nyhuus as adviser. Other libraries, which owing to economic causes were prevented from greater reforms, showed in many details that they were under the same influence.

On the point where Europe perhaps had most to learn from America, viz., library buildings, Mr. Nyhuus did not have the pleasure of seeing any of his plans realized. Still, he had a deciding influence on two buildings which were both opened after his death: Grünerløkken Branch of Deichman Library (1914) and Drammen Public Library (1916). The first belongs to a then rather common type in America. Also, our

newer library buildings bear in their planning the impress of America, even if they are initiated by librarians whose training has been entirely or virtually European. This statement applies to the buildings of Kristiansand Public Library (1915), Rjukan Public Library (1924), Fredrikstad Public Library (1926), Moss Public Library (1927), and Deichman Library (1933). All these buildings are original ones, designed by able architects, well able to compete with contemporary American library buildings.

It is a question whether the same thing can be said of the building of the Oslo University Library (1913). When the plans were brought before the public in 1908, they gave rise to very interesting polemics in one of our newspapers.⁷ Miss Martha Larsen, the young librarian of Trondheim, mentioned before, asked why the authorities in all essentials had searched for ideas and models in other countries than that in which library architecture had its root and where it was constantly developing new branches. Her open letter contained only opinions which at present all librarians would subscribe to. This immediately brought forth answers both from the architect and from the librarian. The latter, A. C. Drolsum, had been the chief librarian of the university since 1876 and felt that his dignity had been violated. The open letter "showed a looseness in the chain of reasoning" and "she from her sphere in a public library was not able to estimate the work of a scientific library." The little quarrel throws light upon a mentality which far too often has prevented libraries from making progress.

However, the old sin was not repeated when the architect and the successor of Mr. Drolsum were going to plan an extension of the building. The new wing, which is still only a project, shows emphatic American features.⁸

Inasmuch as we had no library school in Norway, but were in great need of trained librarians, it came about very naturally that many of our students went over to America to get professional training. A tentative list in our library periodical,⁹ contains ninety-three names of Norwegian students from American library schools before July, 1929. The next year the list could be increased by nine new names. Lately, the current tends more to European library schools (especially Lon-

⁷ *Morgenbladet* (June 1, 2, and 10, 1908).

⁸ Angus Sneed Macdonald, "The University library at Oslo," *Library journal*, LVII (January 15, 1932), 69-71.

⁹ *For Folkeoplysning*, XV (1930), 47.

don)—partly on account of economic causes, partly, too, because the need to go to foreign countries for technical training is less than before.

Undoubtedly we have derived great profit from the hospitality of America toward Norwegian library students, and it is to be hoped that the well-established intercourse will continue even when Norway gets its own library school, which in the long run we cannot dispense with.

ARNE ARNESEN

DEICHMANSKE BIBLIOTEK
OSLO, NORWAY

WOMEN NOT CONSIDERED HUMAN BEINGS

A BIBLIOLOGICAL CURIOSITY

THE basis of this frail disquisition is a plainly written manuscript of sixteen pages, small quarto, which I obtained years ago by the dissolution of the Cordes library in Geneva. It bears the promising but disquieting title *Disputatio nova qua probitur mulieres non esse homines nec salvari*. This, and the text, liberally embroidered with later marginal comments in a different hand, evidently were executed by a professional copyist. Under the title appears in a dissimilar, recent hand, the name "Acidalius," and below this the following legend: *Haec scommata & frivolae ingenii otiosi & levissimi lasciviae a multis doctissimis theologis praesertim etiam ab Aegidio Hunnio, S. theol. doctore praestantiss., in Academia Witeb., primarie sunt refutata anno 1594.*

The thesis that woman is of an inferior clay and therefore socially and legally negligible, was exploded long ago. Women now function in all professions, indeed even as librarians, and excel beyond measure in physical, political, and academic competition with man everywhere, some nearly abrogating their cultural state. But in spite of this robust evolution, the idea that they might not be human beings and possibly be even prohibited from salvation appears criminally anachronistic—even though no man will deny that it is entertaining by way of an experiment in eristics and in a historical setting.

The little manuscript in my possession has indeed a cultural significance, even if only as a paragraph in that ever increasing volume of research aptly termed by the Germans *die Wissenschaft des nicht Wissenwerthen*. If it were similarly limited in a bibliological way, the present respectful tribute to my teacher and friend would never have been written. But this old disputation decidedly merits the bibliographer's attention, for it held the center of the academic stage, amidst impassioned debate, ten generations ago. The manuscript seems to be unique in our hemisphere. It consists of fifty-one theses.

The first point of interest at this time is that we know it in printed form as *Disputatio nova contra mulieres, qua probatur eas homines non esse*, which was printed anonymously, without place and with a spurious date, in the year "MCXCV." This date, considered seriously,

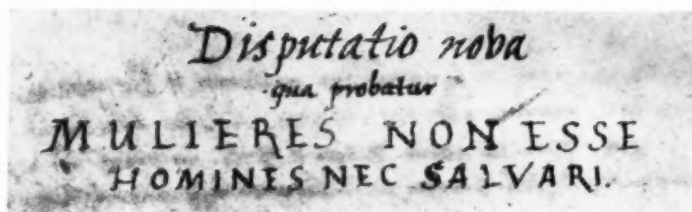


FIG. 1.—Mss., dated 1594

DISPUTATIO NOVA
CONTRA
MULIERES,
Qva probatur eas Homi-
nes non esse.

Anno M. C. XCV.

FIG. 2.—First ed., 1595



DEFENSIO
sexus muliebris,
OPPOSITA FV-
TILISSIMÆ DISPVTA-
TIONI RECENS EDITÆ, QVA
suppresso authoris & typographi nomine
blasphemē contenditur,

Mulieres homines non esse.

SIMON GEDICCVS
Sacrosanctæ Theol. Doct. &c.



15

95

Lipsiæ,

IMPRIMEBAT MICHAEL
LANTZENBERGER.

FIG. 3

would at once convulse any bibliographer. It reads 1195, or more than three hundred years before the invention of printing from type. The inference would be that a *D* was dropped in the date, and this certainly is true, for our manuscript—considered in connection with other evidence—shows that the disputation was a marked book even before being printed. We learn this from contemporary church history and from the above mentioned note on the title of our copy, which states that many learned theologians, but especially Dr. Aegidius Hunnius—then the most pugnacious orthodox Lutheran controversialist known—refuted the reprehensible theses at the University of Wittenberg in 1594—that is, even before they were recorded as printed. Hence, this *disputatio nova* caused considerable disturbance in protestant academic circles, and it evidently must have circulated in manuscript form for some time, at least in Saxony, considering that our copy is derived from that country and dated 1594. Internal evidence indeed strengthens this conclusion, but this is another story.

Instead, we turn our attention to the name Acidalius written below the manuscript title in a modern hand and in violet aniline ink.

Let me say at this juncture that several phases of the present study of the famous *disputatio* would have been incomplete except for the elucidations which accompanied Dr. Sofus Larsen's privately printed Danish edition of the booklet in 1920, and Valentin Schmidt's paper in the *Journal für Deutschland*.¹ The name of Acidalius was, however, temporarily associated with the work at the beginning, although he probably never wrote a word of it.

We thus are concerned with a book by an unknown writer, printed anonymously with a false date, without indication of locality, and temporarily attributed to the wrong author!

Acidalius, given name Valens, a minister's son in the very best sense, was born in 1567 in Wittstock. He pursued scientific studies first in Rostock, Greifswald, and Helmstadt, afterward in Bologna, where he acquired a doctorate in Medicine and—after the manner of many of his contemporaries—also devoted himself ardently to critical studies and editions of classical writers on philological and historical subjects. His academic career having won for him the friendship of such men as Justus Lipsius, Hieronimus Mercurialis, Pinello, Laurentius Wolff, and Nicolao Rhedigero, Acidalius, in the course of his linguistic studies, compiled annotations to and interpretations of Au-

¹ XIII (1819), 112-48.

sonius, Curtius, Pacatus Drepanius, Plautus, Pliny the Younger, Tacitus, and Velleius Paterculus. He had edited Quintus Curtius and prepared a critical apparatus on Plautus when, in 1593, he suffered severe attacks of malaria and returned to Germany, finding a friendly asylum in the paternal home of his friend, the anatomist Daniel Buclecius, in Breslau. He published his book on Q. Curtius in 1594 and began negotiations for publishing his studies on Plautus when he fell into the hands of a Leipzig printer named Osthaus, at whose hands he suffered much of the ignominy known to every struggling writer. The printing of the Plautus was delayed. In this sad state Acidalius threw into the maw of Osthaus the only object likely to mollify a commercially minded vendor of books, namely, a manuscript copy of the pamphlet *Mulieres non esse homines*, a potential best seller. Osthaus grasped at it eagerly. But as the little bauble was full of theological explosives and certain to attract the enmity and persecution of both Protestant and Catholic theologians, the publication occurred precipitately, anonymously, without place or publisher's name, and with the aforesaid misleading date. Compared with our manuscript copy, this printed one contains so many misprints—Dr. Larsen corrected thirty-four—that it must have appeared scandalous to every scholar, even in its outward form.

Scandalous indeed it was from the outset by virtue of its method and contents. The publisher was discovered, cited before the courts, and forced to admit the provenance of the book.

The date of publication, if MCXCV is correctly interpreted as 1595, must have occurred very early in that year, inasmuch as the first printed counterblast directed against it was dated February 10, in the same year. The suggestion therefore was made by Valentin Schmidt that there might have been an edition earlier than the one recorded as the first, but no trace has been found of such an issue. Acidalius, in spite of his protests, was officially assumed to be the author. Happily, his personal safety was assured by the protection of powerful friends. But he died in April, 1595, in Neisse (Nyssa), Silesia, not far from Breslau.

The manuscript contains fifty theses and a corollary numbered fifty-one. Their contents, like the title, constitute neither more nor less than a witty paradox, elaborated in the style of the academic disputations in vogue during the centuries of hermetic sophistication exemplified by learned republics everywhere. The arguments were

developed by a liberal biblical quotation and by the adduction of theological interpretations and dogmatic pronouncements, supported by philosophical generalizations and deductions from obvious ecclesiastical traditions. The work should be considered entirely within the confines of the Protestant church and as a semi-humorous experiment in dialectics directed against the Socinians, or anabaptists. To come to the point, let us quote the first thesis:

In as much as it is permitted in Poland (*Sarmatia*—the printed edition has it, erroneously, *Samaritia*), a country of every exaggerated freedom, to believe and teach that neither Jesus Christ, the Son of God, the Savior and Redemptor of our souls, nor the Holy Ghost, is God, I consider myself free to believe and teach what is of far slighter moment, namely, that women, similarly, are not human; and what follows from this: that Christ did not suffer for them, nor saved them. If, in the said country, those who blaspheme the Creator are not only tolerated, but even accorded rewards by the magnates, why should I need fear to be exiled or punished for bringing false witness against a created being? Moreover because I might prove even as plainly from the Scriptures, that woman is not a human being, as those other persons prove that Christ is not God.

The address is quite direct. The writer intends to level his attack against the socinian tendency in Protestant religion, or the unitarian, or anti-trinitarian doctrines. The history of this movement is well known; it emanated from Italy during the earlier phase of the Protestant revival and spread with Ochino and with Lelio and Fausto Sozzini northward to Poland. The cardinal points of schism were, of course, baptism and the doctrine of trinity. After many trials, synodical controversies, and final compromises, the Polish unitarians attained an agreement on doctrine and practice and sealed this by issuing the Racow catechism. The further history of this sect, its overthrow and its flight from Poland, does not belong here. Heresies are current. The Protestant schism among Lutherans, anabaptists, and Socinians owed its formal controversial elements to the fact that while the Catholic mother-church developed its doctrines on the basis of inspired tradition and a continued authoritative interpretation, the Lutheran and other reformations established all dogmatic authority upon the foundation of the Holy Writ.

The anti-socinian pamphlet considered here takes its stand firmly on Protestant, Lutheran grounds. It is distinctly beyond the sphere of the Catholic church. Its assertive argumentation is based entirely on the authority of the Scriptures. The author argues (Thesis IV) that

"neither in the Old nor in the New Testament is woman termed (*apellari*) a human being"—which undoubtedly, as Dr. Larsen points out, is disproved by Genesis 5:2. In Thesis VIII the author proposes to analyze Genesis 2:18 more closely (*accuratius*): Eve was created for the sake of Adam as an *adjutorium, simile sibi* [i.e., Adam]. But, adds the author, this only means that it is not good for any human being to be alone in the world (*hic nihil aliud dicitur, quam, non est bonum, ut unquam homo solus sit in mundo*). Eve fulfilled the will of the Lord, not by herself constituting a human being, for while she and Adam were alone in the world, there was but one human creature, namely Adam; which is proved by the exclamation of Eve at the birth of Cain (Genesis 4:1-2): *Virum genui juxta voluntatem Domini*; and the will of the Lord was, *ut hominem pergeneraret, ne Adam esse solus*. But Adam, by this interpretation, was alone, even with Eve at his side.

These animadversions, neither theological in tone, nor even dogmatically precise, but purely eristic in character, purpose, and tone, are further developed into what now appears palpable absurdities. The smith (Thesis IX) cannot forge a blade (*ferrum*) without an *adjutorium*, i.e., in his case, a hammer. Likewise, the writer carries a pen, the tailor, a needle. But the hammer is not a smith, nor is the needle a tailor, nor is the pen a writer; *sic nec mulier homo!*

Even St. Paul is called upon to testify: "*Vir*," he says, "*est imago et gloria Dei: mulier gloria viri*" (I Cor. 11:3). Woman, therefore, obviously is not *imago Dei*.

Moreover the apostle asserts: *Per unum hominem peccatum intrasse, non per duos*. If two human beings had been responsible for original sin, then two Christs would have become necessary. But, as we all know, there is but one Christ, *et quidem vir*.

Thesis XVII discusses the gender of the word *homo*, which is interpreted—groundlessly, of course—as a masculine word. *Homo* is supposed to be derived from *humus* (soil, dust), because man was created of this substance. But how could a woman be *homo, quae ex humo creata non est?*

A supposedly cardinal point is raised in Thesis XXXII. The command, "Thou shalt not eat of this tree," was given to Adam, because Eve had not been created at that time; nor was the same command repeated afterward. This is the reason why the Lord, after the fall of man, called to Adam, saying, *Adame, ubi es?* No reproach came to Eve. We therefore sinned through Adam, not through Eve. Her sins do not (Thesis XXXIII) *differre a peccatis brutorum*.

The foregoing examples of the author's method are, while characteristic for his philosophy, more ridiculous than objectionable. But in Thesis XXXVII he refers to Luke 18:15 and quotes the words of Christ: *Sinite pueros ad me venire, talium est regnum coelorum*. Hence the apostles prevented the mothers from bringing small children (*infantes*) to Christ, because among these there were little girls, with whom Christ was not concerned (*nihil ad Christum pertinentes*). This, of course, is a sheer perversion of the biblical statements, because both the Greek text and the Vulgate make use in this connection either of terms neuter (and therefore applicable to both sexes) or masculine in form (*pueri, parvuli*) but used of all children generally.

The relatively sanest proposition appears in Thesis XLV, which reads as follows:

To proceed: The Scriptures state expressly that God is the Head of Christ, just as Man is the Head of Woman (I. Cor. 11:3). But the anabaptists will not concede that Christ is God, although God is said to be His Head. Consequently woman cannot be a human being, because Man is her Head. Or, if she is a human being, they must admit that Christ is God. No agreement is possible, except on this understanding.

This may be considered the relatively most serious argument of the whole work.

But Thesis XLVIII is quite hopeless. Christ first revealed himself in a stable, before an assembly of domestic animals. It is stupid to think that for this reason the cattle would share in His salvation. Such foolish persons as might imagine this do not pause to consider that when Christ revealed himself first to the women, after His resurrection, it was *ut ejus resurrectio citissime ubique pervagaretur, cum enim mulieres sint garrulae*. But even so, the testimony of women has no validity, and owing to this consideration Thomas, the apostle, refused to credit the statement of the other apostles, because they derived their knowledge only from the women.

In Thesis XLIX we learn that women improperly claim humanity on account of possessing the gift of speech, which however, is shared by many birds, and even by a biblically certified beast.

The last thesis leaves nothing to be desired in point of sophism. Women assume that they are human because they are the mothers of men. But this is quite incidental. Life is produced in many different ways; scarabs are produced from horse manure and lice from lard; thus, like frequently fails to produce like (*ita ut simile de simili saepe aberret*).

This concludes the case for the deponent.

It seems almost impossible that a web of such flimsy structure, even if seriously intended, could enmesh the entire Protestant church organization in a towering rage and set in motion both ecclesiastical eloquence and even the legal apparatus adjunct to the church powers. Yet this is precisely what occurred. Theologians at no time could tolerate such playing fast and loose with biblical quotations and accepted truths. Even considered as a practical joke, the argument could not be tolerated or laughed into its merited absurdity.

We possess an *epistola apologetica* of Acidalius as the only authentic statement on his part that he was not the author of the *Disputatio*. His explanations have a sympathetic appeal of sincerity and, besides, are quite definite: *Ego tam illi [i.e., the publisher] non sum edendi auctor, quam non scribendi fui, quisquis ille est, auctori; quem me quidem ipsum esse, nemo tam insanus, opinor, est, qui credat*. He characterizes the *Disputatio*: *Nam istas ego quidem Theses pro re maxime ludicra et jocosa habui, nec impietates aut blasphemias ibi contineri profecto sensi*. He states how Osthaus, the bibliopole, evaded the official censure without his knowledge and in *hanc fraudem me induxit*. Nothing ever has come to light tending to refute these statements. Acidalius recites that the theses fell into his hands by an incident; they originally turned up (*videntur*) in Poland, and he might name some persons, who, years before, saw and read them, and passed them from hand to hand, until somehow it occurred to him that such a piece of literature, if printed, would yield an assured revenue to its printer (*haud parvum inde lucrum typographo provenire posse, si excuderetur*). So, in order to pacify Osthaus, who had suffered a loss through Acidalius' edition of Curtius² and therefore hesitated about the Plautus, Acidalius informed Osthaus that he had in his hands a lucrative booklet which, if he could and would publish it at his own risk, he would send to him (*nuntiavi ipsi esse talem apud me libellum lucrificum, quem si posset atque vellet edere suo periculo, me ei missurum*).

This admission was addressed to his fatherly friend, Jacob Monavius, through whose intervention the desperate young man hoped to avoid the rage of the constituted authorities. It seems scarcely defensible that in this connection he failed to reveal—at least to his confidential friends—the authentic source from which he obtained the copy which he furnished to Osthaus. Considering the heretical explosive contained in the fifty theses, and their certain denunciation by Protestants as well as Catholics, the young scholar must be said to

² Published in Frankfort on the Main, in 1594, for J. Feyrabend.

have acted thoughtlessly at least, when he, even indirectly, caused the publication to occur. What he knew about Osthaus was, in a nutshell, that *id genus hominum lucri cupidum est*. While it is quite possible that we are really dealing with one of the many fugitive pieces of writing for which nobody ever would claim authorship, it seems hardly possible that this work could have been floating about Poland and the neighboring provinces for years in manuscript form without falling into the hands of some other daring and enterprising printer. And yet, we hesitate even to suspect Acidalius of the youthful indiscretion of so serious a practical joke.

The first counterblast against the ungodly *Dissertatio nova* was written by Simon Gediccus. It bears the title *Defensio sexus muliebris, opposita fuillissimae disputationi recens editae, qua suppresso authoris et typographi nomine blaspheme contenditur, mulieres homines non esse*.³

Gedike characterized the *Disputatio* as *atrocissima et plane Diabolica*, whereupon he takes up the main points of argument one by one, and fires his broadsides at them. The language of this author, who held *summos honores* in theology and was pastor in Magdeburg at the time, is of such a character that it cannot be quoted in even this dry bibliographical discourse. I would recommend the Rev. Dr. Gedike's book as a fruitful field of research for the study of invective of the most extreme kind; it is, as such, far more reprehensible than the book against which it was directed. Not only this sincere churchman but many other Lutheran pastors and academicians improved the opportunity to inveigh against the tiny pamphlet. For some time it was a subject of general condemnation. The theological faculties at Wittenberg and Leipzig solemnly warned against the reading of it. And yet, if we may believe Osiander, the whole argument, seriously considered, was conclusively ventilated in the sixth century, at the Council of Macon, when women were voted human beings by the consensus of bishops!

Both the *Disputatio* and Gedike's *Defensio* seem to have enjoyed a measure of popularity in later years. The original text, under the title *Disputatio perjucunda quae anonymus probare nititur mulieres homines non esse*, and accompanied by Gedike's *Defensio*, was reprinted within the same covers in the Hague in 1638, 1641, 1644, and 1693. A French edition, by Meusnier de Querlon, saw the light in Amsterdam in 1744; another, by Charles Clapiès, in Cracow, in 1766. Some popular editions were printed in later centuries in various countries.

Thus, the reverberations of the unintended explosion lasted longer

³ Lipsiae: Michel Lantzenberger, 1595.

than anybody foresaw. The episode probably hastened the death of the promising young humanist. But it did not injure his reputation permanently. Posterity at last recognized him as a religious scholar and a devout Lutheran. Within a life-span of twenty-eight years, he seems to have remained steadfastly a favorite of and wedded to the philological muse. He cannot have been obsessed by any *misogynia eruditorum*, for he indulged himself frequently in composing verses in honor of the weddings of his friends. His epigrams (Helmstadt, 1589) as well as some epics, elegies, and odes breathe the natural joy of life of a young man happy in his search of enlightenment.

Fortunately, Acidalius has revealed himself in a series of letters edited by his brother Christian under the following title: *Valentis Acidalii Epistolarum centuria I. Cui accesserunt I. Epistola apologetica ad clariss. virum Jacobum Monavium; II. Oratio de vera carminis elegiaci natura et constitutione. Hanoviae, Wechel, 1606*. It is almost pathetic to read of his academic life, his hopes and wishes, his fondness for his home and his relatives—now a mere group of shadows encompassed within a faded and foxed book on a library shelf. He did not care for the art of medicine, in which he took honors. *Quin imo exerceo Medicinam*, he writes to David Herliz, *sed illam alterius generis, quae non in vivorum corporibus, sed defunctorum scriptis curandis occupatur*. In spite of his short life, his efforts in classical literature afterward were garnered with unusual but probably well-deserved care. I am no judge of this, except so far as being aware that his beloved Plautus still carries the footnotes of Valens Acidalius; and thus far was realized the hope which he expressed in a letter to Hieronymus Mercurialis: *Non fallat oraculum nos tuum, quod vel Appollinis ipsius Delphici praeponemus*.

This concludes the case for the bibliologist.

J. CHRISTIAN BAY

JOHN CRERAR LIBRARY

J. C. M. HANSON AND INTERNATIONAL CATALOGING

FEW of the younger librarians of the present day can realize or fully understand the situation of cataloging in the nineties of the last century. Libraries in Britain and America were mostly small, as we now count numbers. In Europe there were more of the sizeable sort, almost all of the learned or "scientific" type. What agreement on cataloging practice had been reached in any country was chiefly based on certain well-known codes intended for very large libraries—the British Museum Rules,¹ the *Bodleian rules*,² the Bibliothèque Nationale rules,³ and foreshadowings of the Prussian⁴ and the Austrian⁵ *Instructions*. In America, breaking away in part from these examples, Mr. Cutter had published two editions of his *Rules for a dictionary catalogue*, the first in 1876. There were certain practices reduced to rules by the New York State Library School. There were numerous articles in the library press on principles and practices of cataloging. But in general it is safe to say that provision for the cataloging needs of libraries in America, so far as it existed in print, was but poorly reconciled with the exacting demands of the books in the larger libraries. And these books were fast becoming less and less English, and more and more cosmopolitan, or at least European, in character.

Toward the end of the century the Library of Congress moved into its new building. Even before the actual change of location, I believe,⁶ J. C. M. Hanson had been made chief of the Catalog Division of that

¹ *Rules for compiling the catalogues in the Department of printed books in the British Museum* (London, 1900).

² Cf. Charles C. Cutter, *Rules for a dictionary catalogue* (3d ed., Washington, 1891), pp. 104-107; also Staff Manual of the Bodleian.

³ I. Delisle, *Instructions ... pour la mise et maintien en ordre des livres d'une bibliothèque* (Paris, 1898).

⁴ *Instructionen für die alphabetischen Kataloge der preussischen Bibliotheken* (Berlin, 1899).

⁵ *Vorschriften für die Katalogsarbeiten* (Vienna, 1901).

⁶ I am writing this on the ocean far from any books of reference for verifying what I trust are fairly accurate recollections.

library, and soon after that Charles Martel was associated with him as chief of the Classification Division. These men succeeded in carrying through, with the effective aid of the Librarian of Congress, three momentous decisions. They planned for a new classification of the 800,000 books in the library, for a new catalog on scientific principles, and for printed cards, available (later) for sale to all libraries. It is not too much to say that these three steps revolutionized cataloging in American libraries.

Most wisely, the Librarian of Congress did not decide to go ahead and issue his own rules after the manner of the heads of the great national libraries of Europe. It would be tedious to detail the various steps which led up to the formation of the Committee on Cataloging Rules of the American Library Association and the Library Association of the United Kingdom, which really acted as a joint committee for several years. Both committees contained many distinguished names and represented very adequately the libraries of the two countries. It is to be hoped that some one will publish—before it is too late—a real history of the deliberations of those bodies. As a warm friend of two members of the American committee I knew a good deal of its debates and of the careful study put on the rules by the whole committee. As chairman, Mr. Hanson had a difficult task in reconciling diverse points of view and really different interests. After several years of study he took the American draft to England, where in long and sometimes painful sessions the various principles were studied and differences reconciled. The result was the preliminary edition of the *Anglo-American Code of catalog rules*.

How vigorously this preliminary code was discussed and studied I can myself bear witness. Hanson's correspondence with catalogers in other libraries was heavy and constant. His thoroughness and patience finally bore fruit in the completed *Code*. No one will ever know how much of it is his—but by far the greater part is due to his care and his energy. To him, therefore, should go the credit for the result. His unusual knowledge of German and the Scandinavian languages, his thorough foundation in classical philology, and his skill in the Romance languages alike contributed to put this new code almost at once on an international footing. Its influence has been profound, not only in America and in Great Britain, but also in Europe. The Scandinavian countries have adopted its chief features. The French and the Italians have incorporated much of it in their own official codes. The

Germans—while adamant on some of their peculiar practices—have followed many of its provisions. The *Code* has been translated into various languages in countries such as Russia and Japan, seeking to follow modern usage. No one claims it is perfect, but it is a great piece of constructive work, due to the labor of many able men, but guided by one whom we honor in this group of articles.

One feature of Hanson's work is but little understood. His aim—and that of his committee—was to make a code usable and indispensable for great libraries, but also capable of being followed in smaller and more popular libraries without serious vexation and undue confusion. The measure of success in this aim—and it is a very difficult task to dare attempt—is seen in the all but universal use in America of the printed cards issued by the Library of Congress. To create a code of rules which will satisfy the needs of a library of four or five million books and which will yet govern the making of cards for use in small public libraries and in school libraries is a remarkable achievement. What matter if there be occasional overelaboration which prevents such use? Ninety-nine out of a hundred titles in the ordinary library can be and are cataloged with printed cards made under this code. It requires a genius for concrete statement and for clearness to make this sort of result possible.

But this is not all of Hanson's achievement in international cataloging. To say nothing of his influence by correspondence and personal conference with European colleagues, a phase of his life-work which it would be hard to overstate, he was—again with Mr. Martel—greatly influential in drawing up the Vatican *Norme*,⁷ perhaps the best of modern cataloging codes, and one which goes far to reconcile European and American practice. Like the Anglo-American *Code*, the *Norme* are the result of the combined efforts of several men. While the Prefect and the Pro-Prefect of the Vatican Library are primarily responsible for them, they are the product of a group, in which Hanson's experience and authority carried great weight.

There are doubtless other international aspects of Hanson's career which are unknown to me. No one has advertised his own services less than he. To me he stands as a living example of the cosmopolitan character of modern America. Born in Norway, coming to the United States at an early age, brought up and educated in rural Iowa, living in a German-speaking family and studying at a German theological

⁷ *Norme per il catalogo degli stampati* (Vatican City, 1931).

school in St. Louis, later a student (and champion pitcher on its baseball team) at Cornell, then cataloger at the Newberry, at Wisconsin, at the Library of Congress, and at Chicago—what mixture of linguistic, racial, and social influences! And yet an American, and an American librarian, whom we, his colleagues from near and far, are proud to call one of our own.

WILLIAM WARNER BISHOP

UNIVERSITY OF MICHIGAN LIBRARY

AUTHOR ENTRIES FOR CANADIAN GOVERNMENT PUBLICATIONS

FOR lack of understanding of administrative systems and their development, author entries for government publications, particularly those of foreign countries, often seem bewildering. Aside from the United States, bibliographies of government publications furnish relatively little information concerning the establishment and organic evolution of the various governmental agencies. The statement herewith is offered as a contribution to the better understanding of author entries for government publications, especially for those of foreign countries.

Under the British North America Act of 1867, passed by the imperial parliament, the provinces of Canada, Nova Scotia, and New Brunswick were on July 1, 1867, united into one dominion under the name of Canada. Departments of the dominion government were at that time established about the nucleus furnished by the government of the province of Canada with the transfer, of course, of certain functions and officers from the other provincial governments. The parts of the province of Canada which had previous to the union of 1841 been the provinces of Upper Canada and Lower Canada were separated as the provinces of Ontario and Quebec. By an act of 1870, Manitoba was created a province in the dominion. In 1871, the colony of British Columbia was admitted as a province. Although a participant in the confederation movement, Prince Edward Island did not enter the dominion until 1873. In 1905 the provinces of Alberta and Saskatchewan were created.

In the following provisional enumeration, effort has been made to include the permanent departments, offices, and boards represented by official publications. English names have been used throughout without mention of the French names which are equally valid for official use. Citations to the statutes of Canada have been made in a conventional form by reign year and the chapter number.

ADVISORY BOARD ON TARIFF AND TAXATION. Established by order in council of April 7, 1926. Abolished by order in council of August 8, 1930. The Tariff Board was established by statute (21-22 George V chap. 55) in 1931.

AIR BOARD. Established by 9-10 George V (1919) chap. 11. Merged with

the Department of Militia and Defence and the Department of Naval Service to form the Department of National Defence in January, 1923.

ARCHIVES. Established in 1872 under the Department of Agriculture. Under the Public Archives Act of 1912 (2 George V chap. 4) transferred by order in council to the Department of the Secretary of State, and the archivist raised to the rank of a deputy minister.

AUDITOR-GENERAL'S OFFICE. Constituted under the Audit Act of 1878 (41 Vict. chap. 7), which became effective August 1, 1878.

BIOLOGICAL BOARD. A marine biological station was established by authority of an order in council of May 9, 1898. The board of management was re-organized as the Biological Board by 2 George V (1912) chap. 6.

BOARD OF CIVIL SERVICE COMMISSIONERS. Created in August, 1882, under the Civil Service Act of 1882. Superseded in September, 1908, by the Civil Service Commission.

BOARD OF GRAIN COMMISSIONERS. Established by 2 George V (1912) chap. 27.

BOARD OF PENSION COMMISSIONERS. Constituted by the Pension Act of 1919 (9-10 George V chap. 43). A board of pension commissioners had been set up previously by an order in council of June 3, 1916. Superseded by the Pension Commission in 1933 (23-24 George V chap. 45).

BOARD OF RAILWAY COMMISSIONERS. Created February 1, 1904, as provided in the Railway Act of 1903 (3 Edward VII chap. 58) to deal with the location, construction, and operation of railways, and particularly with rate regulation. The previously existing Railway Committee of the Privy Council (cabinet) was abolished.

BOARD ON AERONAUTICS. *See* Air Board.

BUREAU OF STATISTICS. Dominion Bureau of Statistics was set up under the minister of trade and commerce in 1918 (8-9 George V chap. 43) as a central statistical department, being an outgrowth of the Census and Statistics Office.

CENSUS AND STATISTICS OFFICE. Established under the minister of agriculture in 1905 (4-5 Edward VII chap. 5). Transferred to the minister of trade and commerce in 1912. Taken over by the dominion Bureau of Statistics in 1918. For the taking of the census of 1901, the temporary organization in the Department of Agriculture had been designated as the Census Office.

CHIEF ELECTORAL OFFICER. Established by the Dominion Elections Act of 1920 (10-11 George V chap. 46), assuming election duties previously performed by the Clerk of the Crown in Chancery, the latter very old office being abolished.

CIVIL SERVICE COMMISSION. Constituted in September, 1908, under the Civil Service Amendment Act of 1908, superseding the Board of Civil Service Commissioners.

COMMISSION OF CONSERVATION. Established by 8-9 Edward VII (1909) chap. 27; abolished by 11-12 George V (1921) chap. 23.

DEPARTMENT OF AGRICULTURE. Organized in 1868 under authority of 31 Vict. chap. 53, in continuation of the corresponding department in the province of Canada (Bureau of Agriculture which had been authorized by 16 Vict. [1852] chap. 11). Included originally immigration and emigration, public health and quarantine, marine and immigrant hospital at Quebec, arts and manufactures, census and statistics, patents, copyrights, trade-marks, and archives. These non-agricultural functions have been gradually transferred to other departments. At present the Department of Agriculture functions through the following branches: Experimental farms, Dairy and cold storage, Health of animals, Live stock, Seed, Entomological, Fruit, and Publications.

DEPARTMENT OF CUSTOMS. Organized under authority of 31 Vict. (1868) chap. 43. Subordinated to the minister of trade and commerce, 1892-97. By order in council of May 18, 1918, the Department of Customs was combined with the Department of Inland Revenue as the Department of Customs and Inland Revenue, later designated as the Department of Customs and Excise, and still later as the Department of National Revenue.

DEPARTMENT OF EXTERNAL AFFAIRS. Constituted by 8-9 Edward VII (1909) chap. 13.

DEPARTMENT OF FINANCE. Organized by 32-33 Vict. (1869) chap. 4, being a continuation of a corresponding department in the province of Canada. The Department of the Receiver-General was merged with the Department of Finance in 1879 (42 Vict. chap. 7).

DEPARTMENT OF FISHERIES. Established from the Fisheries branch of the Department of Marine and Fisheries by 20-21 George V (1930) chap. 21. The Fisheries branch had previously existed as the Department of Fisheries, 1884-92.

DEPARTMENT OF HEALTH. Established in 1919 (9-10 George V chap. 24). Merged in 1928 with the Department of Soldiers' Civil Re-establishment to form the Department of Pensions and National Health.

DEPARTMENT OF IMMIGRATION AND COLONIZATION. Constituted by 8-9 George V (1918) chap. 3. From 1867 until March 14, 1892, immigration was under the Department of Agriculture; March 14, 1892-October 12, 1917, under the Department of the Interior; October 12, 1917, the Department was set up by an order in council.

DEPARTMENT OF INDIAN AFFAIRS. Established as a separate department, May 7, 1880. From 1867 to 1869 the service was attached to the Department of the Secretary of State for Canada; 1869-73, to the Department of the Secretary of State for the provinces; 1873-80, to the Department of the Interior.

DEPARTMENT OF INLAND REVENUE. Organized under 31 Vict. (1868) chap. 49. Subordinated to the minister of trade and commerce, 1892-97. By order in council of May 18, 1918, the Department of Inland Revenue was combined with the Department of Customs to form the Department of Customs and Inland Revenue, later designated as the Department of Customs and Excise and still later as the Department of National Revenue.

DEPARTMENT OF INSURANCE. Under 38 Vict. (1875) chap. 20, the Office of the Superintendent of Insurance was established under the supervision of the minister of finance. The office was designated as the Department of Insurance in 9-10 Edward VII (1910) chap. 32.

DEPARTMENT OF INTERIOR. *See* Department of the Interior.

DEPARTMENT OF JUSTICE. Organized by 31 Vict. (1868) chap. 39.

DEPARTMENT OF LABOUR. Established in July, 1900, under the authority of the Conciliation Act, 1900 (63-64 Vict. chap. 24).

DEPARTMENT OF MARINE. Formed from the Marine branch of the Department of Marine and Fisheries by 20-21 George V (1930) chap. 31. The Marine branch had previously existed as the Department of Marine, 1884-92.

DEPARTMENT OF MARINE AND FISHERIES. Called into existence on July 1, 1867, no such department having previously existed in the provinces. Organized by 31 Vict. (1868) chap. 57. By 47 Vict. (1884) chap. 18, divided into a Department of Marine and a Department of Fisheries. By 55-56 Vict. (1892) chap. 17, re-established as the Department of Marine and Fisheries. In 1914 the Fisheries branch was transferred from the Department of Marine and Fisheries, without changing the name of that department, to the Department of Naval Service; in 1922 the branch was returned to the Department of Marine and Fisheries. By 17 George V (1926-27) chap. 62, the department was to consist of two distinct branches: (1) Marine and (2) Fisheries. Divided into a Department of Marine and a Department of Fisheries in 1930 (20-21 George V chaps. 21, 31).

DEPARTMENT OF MILITIA AND DEFENCE. Organized by 31 Vict. (1868) chap. 40. The Militia council was established in the department on November 17, 1904 (4 Edward VII chap. 23). The Department of Militia and Defence was merged with the Department of Naval Service and the Air Board to form the Department of National Defence in January, 1923.

DEPARTMENT OF MINES. Established in 1907 (6-7 Edward VII chap. 29), including the Mines branch transferred from the Department of the Interior and the Geological Survey.

DEPARTMENT OF NATIONAL DEFENCE. Created in January, 1923, under 12-13 George V (1922) chap. 34 through the amalgamation of the Department of Militia and Defence, the Department of Naval Service and the Air Board.

DEPARTMENT OF NATIONAL REVENUE. By an order in council of May 18, 1918, the Department of Inland Revenue was combined with the Department of Customs to form the Department of Customs and Inland Revenue. Designated as the Department of Customs and Excise in 1921 (11-12 George V chap. 26). Designated as the Department of National Revenue by 17 George V (1926-27) chap. 34.

DEPARTMENT OF NAVAL SERVICE. Constituted by 9-10 Edward VII (1910) chap. 43 as an outcome of the Imperial Conference, 1909. By an order in council of June 16, 1914, the Fisheries branch was transferred from the Department of Marine and Fisheries, without changing the name of that depart-

ment, to the Department of Naval Service. By an order in council of June 14, 1922, the branch was transferred back to the Department of Marine and Fisheries on July 1, 1922, since it did not seem expedient to include this service in the proposed Department of National Defence. The Department of Naval Service was consolidated with the Department of Militia and Defence and the Air Board to form the Department of National Defence in January, 1923.

DEPARTMENT OF PENSIONS AND NATIONAL HEALTH. By an order in council of December 12, 1927, the Department of Soldiers' Civil Re-establishment and the Department of Health were merged as the Department of Pensions and National Health, the new department being organized by 18-19 George V (1928) chap. 39.

DEPARTMENT OF PUBLIC PRINTING AND STATIONERY. Established as a separate department in 1886 (49 Vict. chap. 22).

DEPARTMENT OF PUBLIC WORKS. Organized by 31 Vict. (1867) chap. 12, continuing the duties of a corresponding department in the province of Canada. On May 20, 1879, a section of the department was constituted the Department of Railways and Canals.

DEPARTMENT OF RAILWAYS AND CANALS. Constituted May 20, 1879, by 42 Vict. chap. 7, through segregation of functions from the Department of Public Works.

DEPARTMENT OF SOLDIERS' CIVIL RE-ESTABLISHMENT. Created in 1918 (8-9 George V chap. 42). Merged in 1928 with the Department of Health to form the Department of Pensions and Health.

DEPARTMENT OF THE INTERIOR. Constituted July 1, 1873, in accordance with 36 Vict. chap. 4, the Department of the Secretary of State for the provinces having been abolished.

DEPARTMENT OF THE SECRETARY OF STATE. Organized by 31 Vict. (1868) chap. 42. From 1867 to 1873 there was also a Department of the Secretary of State for the provinces, which was abolished when the Department of the Interior was established.

DEPARTMENT OF TRADE AND COMMERCE. Constituted December 3, 1892, under 50-51 Vict. (1887) chap. 10.

EXCHEQUER COURT. Constituted by 38 Vict. (1875) chap. 11, which established the Supreme Court and provided that the chief justice and judges of the Supreme Court be the chief justice and judges of the Exchequer Court. In 1887 (50-51 Vict. chap. 16) the chief justice and judges of the Supreme Court ceased to function in the Exchequer Court, and a special judge was provided.

FARM LOAN BOARD. Established by the Canadian Farm Loan Act, 1927 (17 George V chap. 43).

FISHERIES BRANCH. See Department of Fisheries; Department of Marine and Fisheries; Department of Naval Service.

GEOGRAPHIC BOARD. Created by an order in council of December 18, 1897.

GEOLOGICAL SURVEY. Established as a provincial office in 1843. Between

1877 and 1890 sometimes designated as the Geological and Natural History Survey. Until 1881 located at Montreal. In 1907 the Survey became a branch of the Department of Mines.

HONORARY ADVISORY COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH. Organized under 7-8 George V (1917) chap. 20. By 14-15 George V (1924) chap. 64, the Research Council Act, the council was created a body corporate, commonly known under the shorter title, National Research Council of Canada.

MARINE BRANCH. *See* Department of Marine; Department of Marine and Fisheries.

METEOROLOGICAL SERVICE. Established in 1871. Headquarters at Toronto.

PARLIAMENT. Established by the British North America Act of 1867 with an upper house designated as the Senate and the House of Commons. The Parliament of the province of Canada likewise consisted of two houses, the Legislative Council and the Legislative Assembly.

PATENT OFFICE. Established by 32-33 Vict. (1869) chap. 11 in connection with the Department of Agriculture. By an order in council of June 17, 1918, the Patent Office (Patent branch) was removed from the Department of Agriculture. 9-10 George V (1919) chap. 64 gave the governor-general in council the authority to place the office under any department. The Copyright Office (11-12 George V, 1921, chap. 24) is attached to the Patent Office.

POST OFFICE DEPARTMENT. Organized by 31 Vict. (1867) chap. 10, which became effective April 1, 1868. The Post Office Department in the province of Canada had been transferred to the provincial government by the imperial postal authorities on April 6, 1851.

PRIVY COUNCIL. Established by the British North America Act of 1867 "to aid and advise in the government of Canada." In practice the advisory and consultative functions are exercised by the cabinet as a committee of the Privy Council. Formal administrative acts of the government passed by the cabinet as a committee of the Privy Council and approved by the governor-general are termed orders in council.

ROYAL CANADIAN MOUNTED POLICE. Established in 1873 as the Northwest Mounted Police. In the coronation honors published June 24, 1904, His Majesty conferred the title "Royal." By an act of November, 1919, the name was changed to the "Royal Canadian Mounted Police," and the headquarters transferred from Regina to Ottawa.

SOLDIER SETTLEMENT BOARD. Constituted January, 1918, under 7-8 George V (1917) chap. 21.

SUPERINTENDENT OF INSURANCE. *See* Department of Insurance.

SUPREME COURT. Established by 38 Vict. (1875) chap. 11.

TREASURY BOARD. Constituted by 32-33 Vict. (1869) chap. 4. Acts as a committee of the Privy Council (cabinet) "on all matters relating to finance, revenue and expenditure, or public accounts."

JAMES B. CHILDS

THE WHITTIER LEAFLET "PERICLES"

WHAT would be the commercial value, sold under favorable conditions, of an early and uncollected poem written by John Greenleaf Whittier and printed, in 1827, on a single sheet of paper? And how much would it add to the value of this leaflet if it were proved that the poet set the type and printed it with his own hands when he was nineteen years old, a pupil at the academy in Haverhill? Alas! it is not my privilege to describe so interesting an item but, on the contrary, it is my duty to show that the so-called broadside edition of "Pericles" described and reproduced in the well-known Wakeman sale catalogue of 1924 does not date back to 1827 but is a fairly recent production.

In March, 1901, a Libbie sale catalog recorded (item 1320) a copy of this "Pericles" leaflet. This copy was bought by Joseph W. Stern of New York and ultimately came into the possession of James F. Drake of New York, who sold it to Alfred Clark Chapin in December, 1923. It is now in the Chapin collection at Williams College and is contained in an envelope superscribed thus: "Written at 19 years of age. John G. Whittier was born Dec. 1807. This was published in the *Essex Gazette* September 9th 1827. A. Whittier." "A. Whittier" can be none other than Abigail, the poet's mother, and for our present purpose we may assume that the inscription is a genuine autograph. Mr. Samuel T. Pickard, Whittier's biographer, writing about this copy of the leaflet to the *New York times* on March 31, 1901, said:

It will be remembered that Whittier, while a student at the academy, was a member of the household of Mr. A. W. Thayer, editor and publisher of *The Gazette*, and he has told me that he picked up a part of the printer's trade in the office of this paper, and could set type. It is possible that Mr. Stern's copy of "Pericles" was printed by its young author, for his own use, or for private circulation among his friends.

Mr. Wakeman's copy was examined uncritically by the present writer many years ago, and no suspicions were awakened as to its being a genuine contemporary printing. When, however, in May, 1931, Mr. Carroll A. Wilson questioned the authenticity of another issue printed on the first two pages of a small four-page leaflet, it seemed necessary to examine with care similar material preserved in

the splendid Whittier collection in the Haverhill Public Library. That library was found to possess a copy of the single-sheet impression reproduced in the Wakeman catalog, as well as two similar leaflets, one containing Whittier's poem "Psalm 137," which was first printed in the *Essex gazette* of March 31, 1827, and the other his "Sicilian vespers," which had been copied into the *Gazette* of December 20, 1828, from Garrison's *Journal of the times* (Bennington, Vt.). All three items were printed from old type and on paper which looked the proper age; but somehow there was a feeling of unreality concerning them in spite of the assurance of two local printers, called into consultation, that there was no reason to question their age.

The problem therefore became: Why should Whittier have had these printed? When "Pericles" appeared in the *Essex gazette* of September 8, 1827, Whittier was a lad, nineteen years of age, just finishing his first term in the academy and not known, except locally, as a writer of verse. Was he following the example of that quaint old Yankee balladist and peddler, Jonathan Plummer, whom he described later in the prose essay "Yankee gypsies"? The young Quaker poet was calculating his finances to the penny that year and would not have scorned adding to his slender hoard by selling the products of his pen. But if this were the explanation of our leaflets, why did he not print at the foot of the sheets some such legend as: "Copies can be bought, price six cents single at Friend Thayer's office"? Another explanation evolved was that these printed poems might have been struck off to advertise the never-to-be-published "Poems of Adrian," first announced in the *Gazette* of January 19, 1828. If this were the cause, why print on the sheets the author's name, John G. Whittier, when the "Poems of Adrian" were evidently to be issued under a pseudonym? At this stage of the investigation one of the two Haverhill printers who had been called into consultation, after being shown Mr. Wilson's four-page leaflet of "Pericles," declared that it was printed in Haverhill, probably about 1904, and that he, our informant, had himself set the type. To prove his statement he brought in other copies, in his own possession, but he declared emphatically that the single-sheet issue was not of the same printing and might well be of early date. A minute typographical examination of the two issues discovered differences, but still the two looked suspiciously alike, and for some time the matter was discussed pro and con. The discussion brought out the fact that my informant's former employer had possessed fonts of old type and was accustomed to preserve with care blank fly-leaves torn from old books in order to use them just as he

had done in printing this four-page leaflet. Now this older printer was none other than George D. Morse, for many years auctioneer for Libbie, and later for Anderson in New York, who shared in and afterwards carried on his father's printing business in Haverhill.

This information gave a new turn to the investigation and thanks to the assistance of Mr. Campbell, the helpful librarian of the Haverhill Public Library, the writer met the executrix of Mr. Morse's estate, who still had in her possession a box of documents from his estate. We eagerly looked into the box and lo! discovered there not only copies of the four-page leaflet "Pericles," but a copy of the single-sheet form, and what clinched the matter was the same "Pericles," printed on a more modern paper. For convenience this last may be called the "proof" form of "Pericles." Its text agrees with the single-sheet impression except in the division of stanzas, which, though differing from the single-sheet issue, concords with the division as printed in the *Gazette*. One error of punctuation is common to the proof and single-sheet forms, namely, a point, erroneously placed in the middle of a sentence after the line, "His age from sadness free." There is no question but what the "proof" and single-sheet issues are from the same setting of type, for there are some half-dozen or more cases of broken type exactly agreeing in both printings; these could not have been reproduced by intent, and photographic methods are not here brought into question. There are, nevertheless, significant differences between the "proof" printing and the single-sheet. The proof has no title, nor had the poem in the *Gazette* of September 8, 1827; but the single-sheet has the title "Pericles." The proof agrees with the *Gazette* also and differs from the single-sheet by printing the pseudonym "Adrian" at the foot, and below, on the "proof" only, are the words: "Taken from [sic] the *Essex gazette*. Sept. 8th, 1827," and the author's name "John G. Whittier."

To reconstruct what possibly happened, it may be imagined that Mr. Morse, after discovering the poem, put it in type, struck off a proof, printing thereon a note of the source from which he derived the poem, then used the same setting of type for a few copies on old paper, torn perhaps from second-hand geographies. In this second printing he added the title at the head and the author's name, omitted the pseudonym "Adrian" at the foot, rather bunglingly redivided the poem, producing four twelve-line stanzas, and, in doing so, he split a sentence in the middle, between the second and third stanzas, this slip being probably due to the erroneous point mentioned above.

The typographical agreement of the so-called "proof" and the

single-sheet impressions proves that they were printed at the same time. When was this? A slip cut from the "proof" was submitted to an expert in the manufacture of paper, who most courteously tested it and reported:

The proximate analysis seems to be about 5% of rag, 35% of soda fibre, and 60% of sulphite. The soda process was patented in England in 1854 and the sulphite process in America in 1867. It would seem therefore that the sample that you left with me was made subsequent to 1867.

This places the date of the single-sheet issue as certainly later than 1867. Whittier's mother died in December, 1857, and the envelope in the Chapin collection probably contained, originally, the poem clipped from the *Gazette*. We can easily imagine the mother discovering the clipped poem among her possessions after her son had become famous and laying it away as a souvenir. It is most unlikely that the envelope which bears the inscription was manufactured earlier than 1845.

The claim of Mr. Morse's assistant that he himself set up the four-page but not the single sheet issue is possible for there are, indeed, two issues of the four-page form. A copy of one was found in the same box with the "proof" in the hands of Mr. Morse's executrix, and it has the typographical peculiarities of the "proof." The other was brought to us by Mr. Morse's assistant and a copy is now in the Haverhill library. A careful examination shows that the type was, in fact, reset. Just why Mr. Morse printed the leaflets is not clear. He does not seem to have attempted to profit financially from them nor to have passed them off as originals any more than he did his well-known reprint of "Moll Pitcher."

As regards the two other poems, "Psalm 137" and "The Sicilian vespers," similar proofs of these also were found in the box already alluded to, and while the paper of these was not tested, there is no doubt but a similar situation exists with them as with the "Pericles," for in both cases typographical peculiarities show that the proofs and the printings on old paper are from identical settings of type.

THOMAS FRANKLIN CURRIER

HARVARD COLLEGE LIBRARY

THE ABBREVIATION OF IMPRINTS

I FEEL very much honored by the request to furnish a brief article on some library subject for the number of the *Library quarterly* devoted to my esteemed former chief of the Catalog Division of the Library of Congress. Mr. Hanson is not merely by birth a countryman of mine, but his cradle stood only a good stone's throw from my own father's house in Valdres, one of the most beautiful valleys of Norway, and I knew well the fine stock from which he sprang.

In 1900 he recommended me for a position in the Library of Congress as revisor of cataloging—I am sure rather on the strength of personal knowledge of my philological degree from the University of Oslo than for the reason of my slight seven years' experience as a cataloger and later librarian of the Field Museum of Natural History, Chicago. And if in that capacity I finally achieved a moderate amount of success, I surely owe most of it to his fine inspiration and the example set for solid, lasting work during the ten years I had the pleasure of working under his guidance.

The librarians of the country all know the American Library Association cataloging rules, established at the beginning of the century by a committee of which Mr. Hanson was the chairman. These rules have now been tested for some thirty years, and I dare say that they have stood the test with marked distinction. This does not mean that they, in the nature of human things, were comprehensive enough to meet all the exigencies arising from the fact that the Library of Congress Catalog Division became to all intents and purposes the central bureau of cataloging for the entire country. But I believe it can be said that in these thirty years they have been subject to merely elaborations in detail, and that in the few cases in which fundamental principles have been retouched the innovations have not always meant improvement.

I refer more specifically to a change in entry backed and instigated by the law librarians of the country. The American Library Association rules made no exception to the sound, fundamental principle that a literary work should always be entered and found in the catalog under the same heading. As regards laws and codes of laws, enacted by a legislative body, the rule was to enter under the form heading, e.g., *U.S. Laws, statutes, etc.*, with the sole exception of cases, where the title generally reads: *Commentary on such and such code or special*

law, where the text of the law is not quoted in full or in such a way that it could be easily singled out from the maze of comment.

This rule was modified a few years ago under outside pressure to hold good only in the case of law codes, while single laws, if not issued officially, were to be entered under the editor. This has the unfortunate consequence that the various editions of the same act may be found under as many as half a dozen different main headings. This innovation, in my opinion, was quite uncalled for, especially in a printed catalog, where the editor will appear as an added heading. It constitutes a break in one of the most fundamental rules of cataloging, it caused a great deal of unnecessary, expensive reprinting, and it served no practical purpose, even granting that lawyers may be accustomed to quote an edition or commentary to a law with reference to the editor rather than to the original form heading.

The above does not, as indicated, mean that the American Library Association rules do not in many cases need some elaboration when the time comes for a new edition. Personally, I would particularly like to see some guide to the treatment of imprints, where the rule indicated merely permits some abbreviation in case of cumbersome specimens. I very early started to gather samples of imprints, and may modestly claim that my collection during the last few years of my service was liberally consulted by my colleagues in the Library of Congress Catalog Division. I time and again submitted suggestions for abbreviations to my second honored chief, Mr. Martel, and while I cannot make him responsible for certain general rules that I have formulated, I may safely say that on the whole they represent the present practice in the Library of Congress. They are as follows:

IMPRINT (PUBLISHERS AND PRINTERS)

In giving the imprint of ordinary books, not remarkable for their age (for American books the imprints are to be given in full to 1820 inclusive), rarity, or other special features, the following rules should be observed:

1. Full forenames are as a rule to be represented by initials only, the chief exception being Latin imprints in which the surname alone does not express an oblique case, required by the context.

e.g., Boston, J. R. Osgood and company;
Lipsae, in aedibus B. G. Teubneri;
Mediolani, apud Ulricum Hoepli.

Exceptions:

Paris, Calmann Lévi;
Paris, Michel Lévi;

Paris, Firmin Didot, frères;
Zürich, Orell Füssli.

2. When both publisher and printer are named on the title-page, the latter is to be omitted, except when the author is his own publisher. (Library of Congress still makes exception also for British government publications.)

e.g., London, I. Pottinger (*Not*: Printed by W. Griffin for I. Pottinger);
M. Gladbach, Selbstverlag, druck von H. Lapp;
London, Printed for the author by H. Miller & co.;
Hartford, Printed by Hudson & Goodwin, for the author;
(Library of Congress: London, H.M. Stationery off., printed by Darling and son, limited.)

3. In recording the publisher or bookseller, only so much of the imprint should be given as is necessary for the purpose of identification. Thus the words: *Verlag, in verlegung, im verlage, forlag, librairie, buchhandlung, boghandel, im vertrieb bei, published by, sold by, printed for, printed and sold by, en vente chez, appresso, nell'*, are as a rule to be omitted, care being taken to change the oblique case of the following name to the nominative (but not by substitution of new letters).

e.g., Berlin, C. Heymann (*Not*: Carl Heymanns verlag);
Wien, Manz (*Not*: *Manzsche* ... universitäts-buchhandlung);
Berlin, Weidmann;
Kjöbenhavn, Gyldendal;
Paris, Chaix [etc.];
London, T. Longman [etc.] (*Not*: Printed for T. Longman [etc.]);
Venetia, G. Albrizzi (*Not*: Appresso G. Albrizzi).

But retain the words *buchhandlung* and *verlag* when necessary to distinguish the firm from another in the same city.

e.g., Berlin, Naucksche buchhandlung; Berlin, G. Nauckscher verlag;
München, G. Franz'sche buch- und kunsthandlung; München, G. Franz'scher verlag.

4. When a firm name includes the name of the last owner (generally in curves) the latter need not as a rule be given, except in case the firm later adopted the new name.

e.g., Berlin, J. Schweitzer (*Not*: J. Schweitzer verlag [A. Sellier]);
Leipzig, Dieterich (*Not*: Dieterich'sche verlagsbuchhandlung, T. Weicher);
Leipzig, Franck;
Kristiania, H. Aschehoug & co.;
Budapest, Lampel R.;
Berlin, Gebrüder Paetel;
Strassburg, Heitz;
München, Beck.

Note: Paris, Librairies-imprimeries réunies (*Not*: Librairies-imprimeries réunies [Ancienne maison Morelle]). May et Motteroz, directeurs.

5. When the imprint reads: Printed for the society [academy, etc.] or printed for the author [editor, etc.], mentioning, in addition, one or more booksellers handling the publication, both the real publisher and the first bookseller mentioned should be given.

e.g., London, The society; sold by Longman and co. [etc.];

London, Printed for the author by Cox and Baylis, sold by J. Bohn;
Paris, L'auteur et chez M. Ponce.

6. When, in the case of colonial publications, the imprint records a European publisher, in addition to the local publisher or printer, both should be given.

e.g., Calcutta, Pub. for the Imperial dept. of agriculture in India by Thacker, Spink & co.; London, W. Thacker & co.

7. If an imprint indicates that a book is sold on commission, the words to that effect should not be omitted.

e.g., Mainz, In kommission bei J. Diemer;

Königsberg i. Pr., Kommissionsverlag der F. Bayerschen buchh.

8. The definite article at the beginning of names of firms, societies, etc., may be omitted in all languages.

e.g., New York, Equity press;

Wien, Gesellschaft für graphische industrie;

Paris, Société d'éditions catholiques.

9. When only the printer is given, care should be taken to record as much of the imprint as is needed to establish clearly the fact that the name given does not represent a publisher or bookseller. Use the following abbreviations: *Buchdr.*, *hofbuchdr.*, *universitätsbuchdr.*, *impr.* (for *imprimerie*, *imprenta*, when not followed by an adjective or surname only), *tip.* (for *tipografía*, *tipografica*, etc., with the same restriction as for *impr.*).

e.g., Bonn, Buchdr. von S. Fopper;

Karlsruhe, G. Braunche hofbuchdr.;

London, Private press of F. A. Crisp;

Paris, Imprimerie Schiller;

Paris, Imprimerie nationale;

Napoli, Prem. stab. tip. cav. G. M. Priori;

Pisa, Co' caratteri di Didot;

Buenos Aires, Estab. tip. "El Correo español";

San José [Tipografía nacional];

Melbourne, G. Ferres, gov't printer.

But it may be asked: Why abbreviate the imprint at all? Why bother with economy in this respect, since the Library of Congress is acting as a central bureau for the entire country? It is, I believe, no secret that the Library of Congress, as its catalog grows and an ever increasing number of catalogers is criticizing the output, in spite of a

force of nearly one hundred catalogers finds it increasingly difficult to cope with the mass of material annually pouring into the building. The question then arises, Can some means be found to increase individual output, since both the available space in the old building and the economic necessities of Congress would seem to put certain limits to the further increase of catalogers and classifiers?

While we all must admit that a cheapening of the high standard hitherto set for the Library of Congress entries would be highly deplorable, it has occurred to many that some economy might be effected by supplementing the abbreviation of imprints with a corresponding omission of unimportant phrases in the longer titles, in addition to restricting somewhat the number of notes, while the author's name and the added headings should still follow the present practice.

Another, to my notion, far more objectionable procedure would be to exert a pressure on the entire force by a method of individual daily statistics, thus subjecting the many efficient and hardworking catalogers, together with the few inefficient and easy-going ones, to the same humiliating, slave-driving process. From my own experience of some forty years I unhesitatingly say that this would spell disaster to the accuracy of the output, in addition to reducing the force to a nervous, irritated body of workers with chronic dyspepsia.

A great national library like our own has to handle books in some one hundred languages, dealing with every conceivable subject under the sun. Its cataloging and classification calls for extensive research and knowledge of bibliographical tools, fully comparable with that required by the scientists in our National Museum, the Department of Agriculture, the Bureau of Standards, the Geological Survey, and other scientific activities. The pressure of daily statistics would not leave the individual cataloger enough time to keep up with the new ideas, the ever growing new terminologies, and the new bibliographies and biographies constantly pouring in. It would lead to vastly increased reprinting under the wide awake scrutiny of librarians and catalogers scattered over the country.

It is furthermore a fact that the present system, inaugurated by Mr. Hanson, with individual monthly reports, leaves ample material for the chief to detect possible inefficient or lazy assistants. Such persons can be warned, and, if warning does not suffice, after careful investigation be dismissed or transferred to other work. To submit a body of professional workers in an intellectual field to humiliating proced-

ures should be out of the question in our age and time. There is entirely too much slave-driving as it is in this, our modern machine age. It should give way to an honor system in ever widening circles, instead of being extended to intellectual and scientific fields. The system has led to dire results: a nervous, irritated population, nagged under constant humiliation, with millions unable to land a job. Therefore the N.R.A.

This delicate question could, of course, be more fully elaborated, but my space is limited, and these few hints will have to suffice.

JUUL DIESERUD

WASHINGTON, D.C.

THE UNIVERSITY OF CHICAGO LIBRARIES

A HISTORICAL NOTE

WHEN the pioneers from the Scandinavian countries came to the prairies of the Middle West they found a world waiting to be conquered. They came with the cultural background of their native countries, God-fearing, law-abiding, and honest, striving toward distant goals with a patience that endured every hardship and a courage that surmounted every obstacle. They had an ingrained sense of duty that did not permit them to shirk even the hardest task. Theirs was the heavy burden, the physical burden, and the next generation reaped what they had sown.

But there was pioneer work to be done in other fields as well. By the end of the century the land was subdued, the frontier was gone, and the new nation entered upon its maturity. As the necessity for the hard physical labor of the conquest of the continent disappeared, Americans became increasingly conscious of the intellectual and spiritual tasks that awaited them. The self-made man of the past was no longer the ideal; the nation needed a new leadership, its sons and daughters a new training. Education had always been the American religion, but in the nineties of the last century and the first quarter of the new century Americans worshiped with a new ardor. With an enthusiasm that knew no limit cities and states built up a great educational system without parallel elsewhere in the world, and wealthy individuals poured their millions into great institutions of learning. It was in response to this Midas touch that such new universities as Johns Hopkins, Clark, Stanford, and the University of Chicago came into existence—all in the last quarter of the nineteenth century.

But there was danger that the material development of American education might outrun its intellectual development. It was of utmost importance that the foundations for the new education be laid wisely and well. And to build for the future it was necessary that the builders know the past. Men were needed with vision, but men were needed, too, who were familiar with the historical background of education. It was necessary to marry the cultural heritage of old-world Europe with the demands of the New World.

Among those who brought to the pioneer task of education a rich cultural heritage was Dr. J. C. M. Hanson. It was pioneer work that had to be done at the Library of Congress during the years when he and his colleagues—especially his close friend, Mr. Charles Martel—made out of a chaos the possibilities for a national library. His work as cataloger and classifier at the Library of Congress others have had an opportunity to evaluate.

It was pioneer work that he had to undertake once more when he came to the University of Chicago. The development of the university from a small and dying denominational college to one of the leading universities of the Middle West is even in America an amazing history. Under Dr. Harper's master hand plans were made that sounded incredible when announced, but became realities even during his lifetime.

But though the university as a whole took its place in the forefront of American educational institutions, its library facilities did not keep pace with other educational functions. During the administration of President Judson the imperative need for a complete reorganization and reconstruction of the libraries was recognized; library appropriations were increased, and plans for a new and adequate library building were drawn up. It was considered most expedient and according to tradition that a director of the libraries be chosen from the teaching staff of the university, and the eminent New Testament scholar, Dr. Ernest D. Burton, head of the department of New Testament theology, was appointed director; in Dr. J. C. M. Hanson, chief cataloger of the Library of Congress, an associate director was found, a trained librarian familiar with the technique of library science and administration and competent to build up the resources of the library with a view to its broadest possible educational function.

It became the administration's task to transform into a library what were found of book collections scattered throughout the many buildings on the campus. In the *Daily maroon* of June 2, 1916, Mr. Hanson has described the situation as he found it in 1910.

Of the old University of Chicago Library located near 35th Street and Cottage Grove Avenue, I am able to tell very little. Statements have been printed that it contained about 10,000 volumes, which collection became one of several to form the nucleus for the new library of the University, the organization of which began in 1892. The number of volumes given was probably excessive.

In addition to the old University of Chicago collection, the Berlin or Cal-

vary collections, said to have numbered 175,000 volumes, also, no doubt, an excessive figure, the American Bible Union collection, with 5,000 volumes, the Hengstenberg, with 13,000 volumes, and the Baptist Union Theological Seminary collection, exact number not known, contributed toward making the beginnings of a library which already in 1892, was variously estimated at 225,000 volumes and pamphlets. There is good reason to believe that this number was entirely too high.

A room was opened for a general library in Cobb Hall, the first building to be erected, in 1892. From this building the General Library was transferred to a temporary structure on 57th Street and Lexington Avenue (now University Avenue), in January, 1893. It remained there until 1902, when it was moved to the Press Building, corner 58th Street and Ellis Avenue, where it remained until 1912, when it was transferred to its present quarters, Harper Memorial Library, on 59th Street.

Dr. Harper, the first President, had an idea, I have been informed, that every department should have its own distinct library quite separate from the library of any other department; for instance, Greek should have a library of its own apart from Latin. Each of the chief modern languages and literatures should have its own library. This is the principle on which the University seems to have started its library development, viz., every department developing its own library without any central co-ordinating authority, without a single trained library worker on the campus. I have been informed that Professors would go with students or instructors to the rooms where the Berlin and other collections were stored and take what they wanted for their respective departments. This probably accounts for the number of cases in which, since the reorganization started in 1911, parts of the same periodical or set have been found in several different libraries. To the books thus gleaned from the storage houses, were added those purchased on order of the department. There seems to have been keen rivalry between departments in the upbuilding of their resources. There is evidence that most of the Professors realized the necessity of providing some catalogue and classification for the books in their libraries, but the work of compiling this catalogue and devising and applying classification was entrusted to students, fellows, and occasionally instructors, who apparently did not know very much about cataloguing rules and classification systems, and probably in most cases took very little interest in the task assigned to them. The results were rather chaotic. All departments adopted card catalogues and fortunately, the standard sized card. As for classification systems, the General Library took the Dewey Decimal straight, applying an old edition without modifications. The Divinity School also took the Dewey, but changed the meanings of all the numbers in the 200s and included under these numbers any book obtained by the Divinity Library, regardless of subject. A third department, Physical Culture, also chose Dewey, but used all of the 1000 numbers on Physical

Culture alone. The other departments selecting Dewey were Education and Biology. All other departments endeavored to devise some system with letters indicating classes and with or without mnemonic features. Unfortunately, one department would take, for instance, the letter "K" to denote Political Economy; another would have the same letter for Geology and Mineralogy. The numbers on the labels were written in all possible handwritings, some legible, but the majority very difficult to decipher. The catalogue cards were likewise in all possible handwritings and compiled according to no special rules, as far as one could observe.

In about 1898-1900, it seems to have been realized that the grouping of closely related departmental libraries in one building might be a good policy; accordingly Greek and Latin were brought together and called the Classical Group; English, Germanic and Romance were merged into the Modern Language Group; History, Political Economy, Social Science, Political Science and Philosophy became the Historical or Social Science Group. There followed two years of pretty constant meetings and study of the library problems by the Departmental Committees, the result of which was a general decision that the departments covered by the designation "Humanities" were to be grouped in adjoining and in part connecting buildings along the 59th Street side of the campus, with a General Library forming the center. The Scientific Departments were to be housed in various buildings along the north, or 57th Street side of the campus.

In accordance with this plan, the Harper Memorial Library was constructed on a long, narrow lot between 59th Street and the Divinity Building and the Law Building, connecting with these two buildings on the third floor by means of bridges. The space immediately to the west of Harper Library was assigned to the Modern Language Group, a building which has not as yet been erected, but will ultimately connect the General Library with the Classics Building. The space to the east was assigned to the History Group. When the latter building has also been erected, we shall have libraries running from Ellis Avenue about 500 feet eastward nearly to University Avenue. With the Divinity Building to be erected just north of Haskell (the present Divinity Building, housing Oriental and Divinity departments) there will also be a line of libraries running north and south some 300 to 400 feet. The plan is to have the third floor of all these buildings devoted to Reading Rooms, the basements to stacks, the intervening floors to provide for offices, class and seminar rooms of the various departments. In other words, horizontally, libraries for 600 feet or more, Reading Rooms on the third floor, stacks in the basement; vertically, departments. As a consequence, administration is sure to be expensive and complicated.

Already in 1912, I prepared a lengthy statement for the A.L.A. Conference, which may be found in the Conference number of that year. The same subject was taken up in 1917 at the Louisville Conference, the report having

been printed in the Conference number of that year. As secretary of the Committee of Faculty on Departmental Libraries and compiler of the report of that Committee, I tried to emphasize the same point. Other members of the Committee, however, who had been prominent in the discussions of 1902, when the departmental system was practically confirmed with certain modifications, rather took the wind out of my sails by modification of statements insisted upon. . . .

After approximately fifteen or twenty years, I believe that the growth of departmental collections and consequent development of difficult library problems on our campus, so also the example and experience of other institutions, shall have convinced all concerned that unlimited expansion of many departmental libraries must result either in a Library budget beyond the means of the University, or a cheapening of help and equipment, inferior catalogues, retrenchment in purchases, to an extent which must prove detrimental to the University as a whole as well as to the individual departments. . . .

As a result, we shall see plans for the extension of the present General Library either by the provision of additional stack and reading room space in the present Harper Court, or by an extension of the libraries to include the present Law Building, possibly, also other buildings east and north of the prospective structure planned for the Historical Group.

Of the two plans, the first would seem to promise the best results. The extension of the present General Library east and north on a comparatively narrow line would result in serious administrative difficulties. Experience points to the best results for the least money where library service may be concentrated, the stacks, reading rooms and administrative offices brought into the closest possible proximity to one another, at the same time providing ample floor space for readers and assistants. This can best be achieved by erecting an addition to the Harper Memorial Library which shall occupy the greater part of Harper Court.

I have quoted this memorandum prepared by Mr. Hanson for the twenty-fifth anniversary issue of the *Daily maroon* because it gives a very clear picture of conditions as Mr. Hanson found them when he accepted the position as associate director of the University of Chicago Libraries and also of the difficulties he had to contend with from the beginning. As a librarian with wide experience and knowledge he realized before anyone else that the plans adopted and adhered to from the beginning would be impractical to carry out before long. The departments favored decentralization and Mr. Hanson had to advocate centralization and work for it within the limits set for him.

In order to give a just estimation of what Mr. Hanson accomplished

as associate director of the libraries it is necessary to keep in mind that the plans for the development and housing of the libraries were made before he had had an opportunity to express his ideas. Even the plans of the library building were completed before he came and nothing could be changed, only a much needed book-lift in the east tower was put in at his suggestion. There is apparently nothing in the structure of the building that Mr. Hanson can get credit for, neither is there anything that he can be blamed for. He never liked the building. For obvious reasons he had to be very cautious in his criticism.

Whenever he had an opportunity he expressed his conviction that it was necessary to house the main part of the ever increasing and interrelated collections of books in one building. At the Ottawa Conference in 1912 a paper by Mr. Hanson was read in which he gives an outline of the question of the relation between the departmental libraries and the general library in this country as well as abroad and concludes with the following statement:

A university owes it to its constituency to see that a strong and well balanced general library constitutes an integral part of the scheme. The establishment of the latter should, when possible, take precedence over that of large departmental collections. When it becomes necessary to organize the latter, they should be considered distinctly a part of the general library and be placed under its control.¹

He finds occasion to mention that in 1910 "the general library was found to consist of some 75,000 volumes of odds and ends, a mere conglomerate which would have been of little service, except for the fact that it was the only collection on the campus from which books could be drawn somewhat freely. . . . Appropriations for books amounted to \$25,265 of which the general library had only \$1,550."

At the Louisville Conference, in 1917, the statements of 1910 were supplemented in a paper largely devoted to a consideration of the problem of centralization versus decentralization. Shortly before this conference a report of a subcommittee of the Library Board had advised against more centralization of the university's libraries. Mr. Hanson defended himself against those who charged that he was stubbornly opposed to all departmental collections.

I feel that there cannot fail to be a gradual change of heart on the part of many departments. The spirit of the times calls for co-operation, co-ordination and correlation of resources, economy and efficiency of management

¹ *Bulletin of the American Library Association*, VI (1912), 292.

and the best possible results for the least expenditure of money. No one can deny that the development and upkeep of separate libraries, covering almost identically the same field of knowledge, in different buildings barely a stone's throw apart means greater cost and less efficiency than where such collections are merged into one. It represents a situation, the continuance of which is not likely to be looked upon with favor by university administrators who have noted the tendency of the times and have come to see the importance of a strong central library. The wisdom of centralization and co-ordination of library resources on the same or related subjects is so obvious to the experienced librarian that it seems almost unnecessary to devote time to it at a conference like the present one.²

In a memorandum to the Commission of Libraries in 1923 he again stated his opinion in regard to centralization versus decentralization of book resources:

The question which I believe a librarian would be tempted to ask, is this: Would it not be well to consider *immediately* the possibility of a central library, large enough to accommodate the books in the Sciences as well as the Humanities, any further grouping or enlargement of Science libraries at the present time being considered merely as a temporary measure? In other words, if a Science library is to be erected now, plan it in such a manner that it can ultimately be used, without much alteration, for purposes of instruction, offices, laboratories, or in part as branches or stations of a central library.

From the point of view of the teaching departments, I can readily see that the separation of the Sciences from the Humanities may appear quite feasible. In planning departments and courses of instruction, the lines of division have seemed clear and well defined. Unfortunately, books cannot be so divided, except in part. Many, particularly the more expensive sets and reference books, are of interest to departments in the Sciences and also in the Humanities. Duplication is out of the question because of the great expense and the difficulty in securing extra copies. More serious even than the duplication of books, is the problem of service, catalogues, reference apparatus and equipment. This is really the obstacle which has forced various commissions, engaged in study of the question, at Glasgow and elsewhere, to turn to the centralization of book resources as the only way out.

To summarize:

1. I do not believe that the Science Libraries can get on without Humanities, or the Libraries of the Humanities without Science. Books cannot be divided along these lines, and the problems of administration and the expense resulting from any attempt to make the division would prove too great.

2. Whatever may be decided upon now, with reference to the extension of library facilities, whether in Humanities or Science, should be so planned that

² *Ibid.*, XI (1917), 215.

the buildings or rooms provided can later be used for other purposes, without expensive alterations; that stacks, shelving and other library equipment may later be utilized elsewhere, for instance, in a large central building.

3. In the selection and rejection of books, their cataloguing, classification, purchasing, binding, charging and recording, it is recommended that no radical change be made in the methods or system developed during the last twelve years. This will mean that, should the University at some future date, decide to change its present policy, whether in the direction of greater centralization, or the reverse, the changes involved could be carried out with a minimum of expense and the least possible disarrangement of the service.

4. The departmental libraries cannot in the long run function in a satisfactory manner without direct access to and connection with the catalogues, reference collections and personnel of the central library.

5. The present situation of these libraries must therefore be looked upon as a temporary arrangement. Fortunately with standard stacks and equipment, their books catalogued and classified as integral parts of an organic whole, i.e., the University Library, transfer and installation of these large collections as definite sections of a great central library may be carried out with the least possible expenditure.³

Dr. Hanson fought valiantly for the development of the general library, and with outstanding success. But on the issue of the extension of the present Harper Memorial Library versus the construction of new library buildings, he met defeat. But though overruled on this question, there were other matters of no less importance, connected with administration, which afforded an opportunity for service on the part of one who had benefited from long and varied experience in organization of large libraries.

It is, of course, obvious, that a library building, library equipment, and books do not, in themselves, constitute a library. It is, in addition, necessary that the books be made readily accessible to readers and that the fullest resources of the library be placed efficiently and intelligently at the command of the research worker. In order that this end be achieved, it was of utmost importance that the cataloging and classification be brought to a high state of efficiency and that a library staff, trained in the peculiar responsibilities of a research library, be developed.

Mr. Hanson's achievements in these fields were significant. In a special report to the Board of Trustees of the university, presented in

³ This statement not included in the *Tentative report* issued by the Commission, January, 1924. Cf. however, in the same report, pp. 90-93, his "Memorandum on the office of librarian."

1925 by Mr. Hanson and Dr. Burton, a brief survey is presented of the development of the libraries under their administration, and indicates something of the more substantial and permanent achievements of the staff. What had been accomplished in regard to the development of the resources of the libraries and their care, is here set forth as follows:

The last fourteen years have witnessed important changes. The entire library system of the University has been harmonized and coordinated, so that nearly all books are now purchased, catalogued, classified and bound under the direction of the central administration and on a system which will compare favorably with that of any other university. The new cataloguing and classification system, begun in 1911, incorporates by this time over 950,000 volumes and pamphlets, to which the present staff is able to add about 72,000 volumes a year. The system adopted is that of the Library of Congress, and it is so comprehensive and elastic, and the work is done in so thorough a manner, that there will be no need of expensive alterations or reorganizations in the future. No increase in book resources, or possible changes in policy will necessitate serious modifications or changes.

Special attention has been paid to the development of reference books, bibliographies and source materials. Learned society publications and periodicals are well represented. The collection of Government documents is no doubt the largest in the West. Valuable collections of manuscripts have been acquired, also newspapers of importance for historical research. History, Philosophy, Philology and Literature have been built up, so that in certain departments, like American Literature and History, British Literature and History, Church History, Religion and Theology, Classical Archaeology and Philology, Egyptology, etc., the University of Chicago now rivals some of the oldest and largest institutions of the East and is equalled by few, if any, of the institutions of the West.

When Mr. Hanson came to the university, its libraries, as we have seen, consisted mainly of scattered and unrelated collections of books, some of them large and complete within their particular field, others small but important as nuclei for further development. He was therefore from the beginning aware of the necessity of filling out and coordinating these collections, and developing the general resources of the library. In continental libraries it is the function of the librarian to supervise the growth of the library and the final decision in the selection of books is in his hands. Such control and supervision is of even more importance in the United States where the growth of centuries is compressed in the short period of a generation. To create a library out of the miscellaneous collections in the possession of the university demanded that more time be spent on book selection than

would ordinarily be required where a library had had an opportunity to develop its resources through the constant care of generations of librarians and where there was a historical continuity in its growth.

Mr. Hanson's training, his profound knowledge of books, his command of foreign languages, and his historical sense fitted him eminently for this task. He enlisted the help of the different departments and was always open to suggestions. Notable results were attained; the collection of books which had grown in eighteen years from 289,000 volumes to 1,100,000 volumes compares favorably with the best collections found in this country or anywhere else. Appropriations alone limited the efforts of the library administration in this direction. Fortunately, most of the important sets of scientific periodicals were purchased at a time when it was possible to get complete files at a reasonable cost.

For several years it was my privilege as chief bibliographer to assist in the supervision of the growth of the libraries. All printed cards that came to the library from other libraries were read; all important catalogs and book reviews studied with a view to acquisitions; the constant addition to existent collections—something often forgotten—was taken care of, and through conferences with professors the needs of the departments supplied as far as possible. A definite routine in this matter was established and strictly adhered to.

It was always Mr. Hanson's endeavor to have as much of the yearly appropriations for books as was possible left to be spent at the discretion of the librarian in order that the library could be developed as a whole. When he left there were on file cards for books needed in the library that it will take another generation to acquire; the task of a librarian is endless, but only the familiarity with the book resources that are in the library makes it possible for a librarian to use his appropriations wisely. Mr. Hanson knew his library; every book added to the library passed through his hands, and its cataloging and classification was inspected by him before the book was placed on the shelves.

Also, in other respects he succeeded in developing the usefulness of the library. In the main reading room was a reference collection, especially rich in bibliographical material, which compared favorably with similar collections elsewhere in the world. It was Mr. Hanson's wish to have a catalog of this collection printed. Unfortunately, this was never done. In addition to the excellent catalogs of the library, Mr. Hanson established a union catalog where the printed cards

from the Library of Congress as well as from five of the leading university libraries in America, in part also from the Vatican and the British Museum, were filed and the research worker thus aided in locating material available for him in this country and abroad.

Many difficult problems of administration arose out of the fact that the university was not alone an institution for research but also an undergraduate college. There was, for example, the problem of reserved books. In common with all college libraries in this country the library had to provide room for and supervise the collections of books set aside for collateral reading, a problem of less importance in university libraries abroad where such collections, if needed, usually are kept in seminar rooms and not considered as a part of the library resources of the university. The problem was perplexing and several solutions were attempted. All the books required for collateral reading were for a time kept on open shelves in the main reading room, but this experiment had to be given up. The books were in such constant use that students were unable to get their assigned reading done in time; books were passed from friend to friend or misplaced on the reading-room shelves, sometimes intentionally. The scheme had to be abandoned.

It was then decided to place all these books on open shelves in a stack-room on the first floor, but that plan also had to be modified. From 1916 on, a system of careful supervision and regulation of these reserved books was inaugurated. The stacks set aside for these books housed about 13,000 volumes, and the books were delivered over a counter. The administration believed that this plan would meet the situation until such time as a special reserve book reading room could be provided. Mr. Hanson wanted to have a special reading room for this purpose either in the main library, or preferably, outside of the library; it was his belief that such an arrangement would be the only satisfactory solution of this problem.

In this connection it may be appropriate to quote what Dr. George A. Works has to say in regard to the problem of reserved books in university libraries.

University authorities should not consider that they are adding to the permanent library resources when purchases are made for the ordinary duplicates for reserved reading of undergraduates. These materials should be regarded as being essentially the same as laboratory supplies. They are needed with the methods of instruction that prevail in most universities. They are

worn out or displaced by better books in a relatively short time. It seems wise, therefore, to pursue the same policy with reference to them that is followed with laboratory supplies.⁴

Mr. Hanson's achievements in the field of cataloging and classification are dealt with elsewhere. He insisted, from the beginning, on the highest standards; no effort was to be spared to make the catalogs of the university libraries as near perfect as was possible. While recognizing the necessity of economy, he maintained that perfection rather than expense was the only valid consideration in this connection. He was keenly aware that economies here would in the long run prove to be false; that though it is possible, in library administration to conceal for a time shoddy and inadequate work, such work proves more costly, in that it must eventually be done over. It was one of Mr. Hanson's axioms that "there is no short-cut to anything, least of all in library science," and he insisted that, if the cataloging and classification could not be done according to the highest standards, they were best left undone, except for certain minor and ephemeral literature to which provisional and less elaborate methods might be applied. Nor did he hesitate to point out, with his customary honesty, that the larger the library the more costly the addition of each book. "Increasing perfection and completeness of the catalogs reduce expense, but growth will of itself increase it."

It remains to say a word about the development of a library staff. Mr. Hanson himself was an excellent, though a severe, teacher. His own standards were high, and he insisted that these standards be maintained by his staff. Some of this staff he brought with him from the Library of Congress; others he himself trained to the special needs of the university library. It was his firm conviction that the library science was an exacting one, and he insisted that assistants serve an apprenticeship before they were given positions of responsibility. The chief bibliographer, for example, was required to work for several years in the bookstacks and the classification department before he was given an opportunity to work in his special field.

Mr. Hanson was particularly anxious to avoid, in library work, the narrow specialization that is characteristic of so much of American intellectual life. Foreign library journals and publications were distributed among the members of the staff who, in his opinion, had the maturity to profit by them, and they were given an opportunity to

⁴ *College and university library problems* (Chicago, 1927), p. 29.

review these articles at the regular monthly meetings of the staff where the various problems of the library administration came up for discussion.

Mr. Hanson was proud of the staff and loyal to it. Handicapped as he was by limited appropriations, he nevertheless built up a staff which served the university community well, and which attracted the attention of library administrators in other large libraries. This staff, like the library which it served, was in a large measure the direct result of Mr. Hanson's unremitting efforts.

At the retirement age Mr. Hanson was appointed to a position as professor at the Graduate Library School, then established at the University of Chicago. In his last report to the trustees he reviewed his work and, in very modest terms, bade farewell to the library which he had served so long and so loyally. "It is hoped that the work done during these years," he wrote, "at any rate insofar as it affects selection of books, their cataloguing and classification, and the development of a trained staff, will be found to have gone forward on sound lines and will not require drastic changes in the future."⁵

Within the power delegated to him, and with the possibilities for development which had to be adhered to during his tenure of office, Mr. Hanson accomplished something that in the history of the University of Chicago should never be forgotten. His work revealed not only a high order of skill, but a profound grasp of the problems of library administration and of the proper relation of the library to the university and to the world of scholarship. A pioneer in the field of library administration, Mr. Hanson's achievements were of significance not only in the development of American libraries, but in library science in general. His work justly commands the admiration of those who appreciate not only technical accomplishments, but who value rich scholarship, catholic spirit, and integrity of character.

A. TH. DORF

BROOKLYN, NEW YORK

⁵ *Report of the University of Chicago Libraries, 1927-28.*

CALL NUMBERS

THE usual procedure, when a man wants to take out a book from a learned library, is for him to look up the book in the catalog, write out a call slip, carefully copying in the call number, hand in the slip, and wait for the book. It will probably surprise my readers to learn that ten years ago no call slips were required in the University Library of Copenhagen.

The lending department resembled a shop: a long counter ran through the room; on one side of it came the public, on the inner side were some four or five assistants. The borrower told the assistant that he wanted this or that book, whereupon the assistant fetched the book or books from the shelves in the bookstacks. Then the borrower wrote a receipt for the books, and since the receipts were arranged by the name of the borrower, there was no objection to his writing all the books on one slip, the only restriction being that no more than four books might be taken out by the same borrower on the same day.

In the reading-room a similar procedure was followed. One man had to remain on guard; the others fetched books. The catalogs were used by the public only for finding what books the library had on a certain subject; the catalogs were principally for the use of the librarians.

The assistants, of course, were no mere messengers or boys; they were fully trained librarians, and many of them old men. They took out the books without requiring the catalog at all. The youngest assistants in the lending department and the reading-room, respectively, put back each morning the books returned to the two departments; in this way they very soon learned to find their way about; a young assistant would have to look up, say, one-fourth of the books; an old assistant could take out books for hours without referring to the catalog, as long as the book was in the library and the borrower knew its title correctly—or incorrectly—since the assistant very often could assist him to find a book from the merest hint of the right title.

To the public this arrangement was almost ideal. No call slips to write for books not in the library or not available; no looking up call numbers in the catalog; an unlimited possibility of alternative orders—"If this book is out, give me the other!"—but, above all, the feeling

of having talked personally to an intelligent person, who was himself responsible for the whole carrying-out of the matter. The only drawback was that the number of volumes was limited to four for the same person on the same day, a rule prescribed only to limit the time of waiting for the next borrower and set aside whenever there was time enough, or the borrower had a good reason for needing more than four books.

To the staff the arrangement was less perfect. While each borrower got his books sooner than he could have had them under any other system, there was a great waste of time, since the assistants ran all over the place, and three or four of them would often have to go at the same time to every corner of the library, one after the other. It would clearly be a saving of time to the assistants, if, instead of four men going to the same four corners to get one book from each, the calls were divided, so that each man got four books from one corner only. But worse than that was the strain of not knowing from one minute to the next how long you could remain at your work. For all cataloging and most of the work outside the desk service was done in between the calls. The youngest assistant took all the calls as long as he was present; when he was away, the next in age came into action, etc. In the reading-room, where books were given out from ten to three o'clock, the assistants, on duty during the same period, had no guaranteed time for other work at all; in the lending department, where the hours were from eleven to two, the two hours from ten to eleven and two to three were free; but they were mostly taken by the daily routine, and very little time was left for greater undertakings.

So the time came when a change was necessary. One way would have been to reduce the number of trained assistants, engaging a lot of boys and messengers to do the fetching and carrying, and asking the public to look up the books and put call numbers on the call slips. This way was not practicable. The University Library is a state institution, the staff are civil servants, and they cannot be discharged except by law and with pensions; a change in the personnel could be effected only slowly and by degrees. There were also other difficulties. The call numbers are not printed on the backs of the books, the catalogs are not very well adapted for the use of the public, and there was no room large enough to make the whole catalog accessible.

But still there were ways out of the difficulty. The public was required to make out call slips, one for each book. These were brought by messengers to the assistants, who had their places nearer the stacks

and farther from the public, and each assistant had only a limited district in which to take out books. The call slips for the reading-room and the lending department were not kept apart, but were distributed together; each assistant put back all the books in his own district.

This was found to be a very great improvement. The number of assistants actually occupied in waiting on the public could be reduced, without too greatly increasing the time of each stack call; those who were free could get some work done, being no longer directly under the accusing eyes of the waiting public. The assistants saved many steps in fetching and carrying, since the messengers brought them the call slips all the way to the stacks and took back the books.

With the time thus saved it was possible to undertake a revision of the catalogs. Since the University Library, in spite of its name, is a special library for medicine and the exact and natural sciences, the recataloging of course had to take effect in these divisions. And since a recataloging of the entire collection in these divisions was neither practicable nor desirable, a line was drawn at the year 1900—only books after this date were to be taken out and placed in the new catalogs; the rest had to stay in the old arrangement. But before a plan could be drawn up for the new catalogs, the question of the call numbers and the whole arrangement for getting out books had to be taken into account once more.

It is evident that the power of the assistants to find most of the books without looking them up had its root in the arrangement of the old catalogs. The books were arranged in groups, each of which had a name: "Math." for Mathematics, "Fys." for Physics (*Fysik*), "Geol." for Geology, etc. The arrangement inside the groups was parallel: Bibliography, History, Periodicals, Mixed collections, Collected papers, General, Special. The last group was subdivided if necessary; each subdivision was arranged once more on the same lines, ending with "General," "Special." Each book had a number; in a single group the numbers between 1 and 99,000 were used, but from the first only every tenth or twentieth number was used, so that books could be inserted all along. But the most important thing was that in all the "last divisions" the books were arranged by author, not by date. If you knew the author and the title, which you had, of course, from the borrower, it was quite easy to get the book, since the subdivisions were few and large and the books arranged alphabetically.

Although this alphabetical arrangement was excellent, as long as it

was only a question of finding a given book, it was far less perfect when it came to finding the best book on a given subject, or a very special book among the "other specialties" at the end of the larger divisions. In short, the catalog was a very fine shelf-list, but a very poor systematic catalog, and the more it grew, the less useful it was to the public. This "tug of war" between the interests of the shelf-list and the systematic catalog I have described in a short paper.¹

It was evident that the new systematic catalog had to be divided into many small groups. Each group had to be arranged, not alphabetically by authors, but chronologically, and every book had to be entered several times, if necessary. But such a catalog is not very useful as a shelf-list—nobody could take out a book without looking it up first. And when that is the case, then the trouble of looking up the books has to fall on the public, since no library could afford to have this work done by its staff.

One way out of the difficulty was to make a dictionary catalog instead of a systematic catalog. This was discussed and rejected. The best thing, if you can afford it, is to have all three: shelf-list, systematic catalog, and dictionary catalog. This was out of the question. But what is the next best thing? That depends to a large extent on what sort of library it is and what sort of public it serves. In a general library I would prefer a dictionary catalog and a combined shelf-list and systematic catalog, e.g., the Decimal Classification; but for a special library I hold that the systematic catalog is of more value, especially if the public is well informed and used to libraries.

This conclusion I reach in the following way: The more a reader knows about his subject, the less will he be dependent on the library catalogs for his titles; he will come to the library to get the books he has already found quoted somewhere else. If he wants the catalog, he will be better served by a systematic catalog, since he knows the particular science well, and will find no difficulty in grasping the system. He will sit quite happily with the smallest possible part of the systematic catalog, while a dictionary catalog would probably send him through half the alphabet before he was sure that he had seen everything he wanted. He has no use for the dictionary catalog except in one case: If he has to look up all his titles for call numbers, then the dictionary catalog is by far the best. But we were trying our best to dispense with the call numbers, and this seems to mean that

¹ "Realkatalog oder Standortskatalog?" *Zentralblatt für Bibliothekswesen*, XLV (1928), 42-45.

we can better do without the dictionary catalog than without the systematic catalog.

Or take the argument from the other side: A systematic catalog that has to do as a shelf-list also is either a bad shelf-list or a bad systematic catalog (or bad both ways!). It needs the dictionary catalog for support in the second case, while in the first case, since then call numbers must be obligatory (as they are, with a bad shelf-list), it needs the dictionary catalog once more, since all the books have to be looked up by the public. So once more we find that the real need for a dictionary catalog is connected with the fusion of the shelf-list and the systematic catalog. But if we separate those two, and make a good systematic catalog, then we can do without the dictionary catalog, if we can so arrange our shelf-list that we can find the books without call numbers.

The new systematic catalogs lie outside the scope of this paper, which has to do with the new shelf-list. The problem raised is: Is it possible to make a shelf-list that will enable the staff to take out the books without call numbers?

First of all, there are two distinct sorts of books—periodicals and books proper. I have never seen the good of incorporating the journals in the systematic catalog or in the shelf-list together with the books. A man knows whether he is looking for a periodical or a book. Moreover, the periodicals are almost exclusively taken out by people who know what they want; they are called for by volume and date. The percentage of calls for periodicals made from the bare entry in the catalog that the library possesses "*Journal of . . .*" must be exceedingly small.

From this follow two conclusions: first, that the periodicals can be removed from the systematic catalog and placed in a shelf-list of their own; second, that they ought to be arranged by their titles rather than by their contents. It will be well to put them in groups, if only because the calls from any single man will often be in the same group. But this grouping should be done more by the title than by the real contents. An example will illustrate this better than any explanation. In the University Library the *Zeitschrift für Biologie* is placed among the medical periodicals, because it is more of a medical journal than one of biology. *Cui bono?* The public never looks through all our medical journals anyway; and the staff has only to learn, with no little loss of time, that this journal, in spite of its title, is not placed with the *Annals of applied biology*, the *British journal of experimental biol-*

ogy, *Quarterly review of biology*, *Biological reviews*, etc., where it belongs—according to its title.

Let, then, the periodicals be arranged in groups corresponding more or less to the groups of the shelf-list, but by titles more than by contents. Within the group they are arranged either just alphabetically by titles, or first by languages, then by titles. By languages, not by countries. Why should the staff, whose duty it is to find one volume of the *Journal of physiology* and another of the *Journal of general physiology*, have to remember that one is English and the other American? But that the *Journal of physiology* is written in English and *Archiv für die gesamte Physiologie* in German requires no power of remembrance. Once more the rule should be formal: periodicals with Latin titles—*Acta*, *Folia*, etc.—should come together; no need to remember that *Folia haematologica* is German; *Hygiea*, Swedish; *Hygeia*, American; *Acta paediatrica*, Swedish; *Acta rheumatologica*, Dutch; *Ars medici*, Austrian; *Clinica*, Roumanian; *Bibliotheca genetica*, German; *Bibliographia genetica*, Dutch; *Biometrica*, British; *Genetica*, Dutch; *Haematologica*, Italian; *Hereditas*, Swedish; and *Acta biologiae experimentalis*, Polish.

Of course the journals should have call numbers; and an alphabetical list of them all, with call numbers, should be kept on the spot, so that any doubt about the place of a journal, or whether it is in the library at all, could be solved at once, without reference to the catalog.

Any journal of any length makes itself felt on the shelves. From my own initiation as an assistant I remember quite well how the journals were the landmarks, so to speak. I think that even a messenger could be taught to fetch most of the journals required without looking them up, or asking for call numbers, provided that they were placed together alphabetically, and if it was also his duty to put them back again; and I am not sure that there is really any excuse for a library, no matter what its size, demanding that the public must look up all the journals in the catalog every time.

So far I have dealt only with periodicals pure and simple; now for the periodicals issued by learned societies, universities, and the like—proceedings, transactions, bulletins, reports, etc. Well, what of them? Into the alphabet they go with the rest! They are generally neither in their contents, nor in their form, nor in their use different from the rest. Indeed, there is no hard-and-fast rule by which to know them. When the *Bericht der Senckenbergischen naturforschenden Gesellschaft*

changed its name to *Natur und Museum*, its contents do not seem to have been affected. But far stronger is the argument from the use of these publications. Only very few readers will take out the collected publications of a single institution and read them from end to end; very few will take up a volume of transactions just for the sake of the institution that "transacts" them. Like all other periodicals, they are called for by volume and date, by people who know exactly what they want; they are just periodicals and should be treated as such. Since the titles are easily distinguishable from the titles of ordinary journals, it is quite possible to make a separate group out of them; but I generally think that Occam's razor is a very useful instrument in a library: *entia* (e.g., alphabets) *non sunt multiplicanda praeter necessitatem*. You have to prove the necessity of a new alphabet before you make it.

So I would put the publications into the same alphabet with the other periodicals, and I should arrange them just by titles, not by institutions. This is a much-debated question on which I differ from many recognized American authorities. I may take up the argument elsewhere, but not here.

Having thus arranged the periodicals we turn to the books; but before we can take care of the ordinary books, there is a small class of books to be taken into account—the congresses and their reports. They are in some ways the most troublesome of all the librarian's charges; and it is no bad idea, if a thing is troublesome, to isolate it, so that it is easy to go through it all if necessary. So I take out the congresses, and put them at the head of every division. Within each group the congresses are arranged by countries, not, this time, by language, because one of the difficulties about them is that two consecutive congresses in the same series may have different languages. The countries may be arranged either alphabetically or by some system. The alphabetical arrangement is easy to remember, and it is easy to place new countries in it. It has the drawback that things that belong together are separated, e.g., Scandinavian is *S*; Danish, *D*; Norwegian, *N*; Swedish once more *S*; Northern (*Nordisk*), either *N* or *S*, since it is the same as Scandinavian. The systematic arrangement has the advantage that International comes at the beginning, Scandinavian plus Northern together just before the single Scandinavian countries; on the other hand, it is a little more difficult to learn.

After the congresses come the books in one single alphabet, by au-

thors; anonymous books go in by editors, if possible; otherwise by title. A card tray containing the shelf-list is found at the beginning of each group; in this way any book not found at once can be looked up on the spot, without the delay caused by sending the slip back to the catalog room.

Every volume has its call number. The call number consists of the "name" of the group—Math., Fys., Geol.,—and a number. For the books they are simply Cutter numbers with two letters, according to Danish practice; for the congresses they are Merrill numbers for the country, followed, if necessary, by a Cutter number for the subject. In this way the congresses automatically come before the books, since the Merrill numbers by themselves take precedence of the Cutter numbers. The periodicals are not kept together with the books and congresses; they form a separate group, distinguished by the letter *T* (for *Tidsskrift* = Periodical) before the group name. They get either a Merrill number for the language or, preferably, a letter denoting the language, and then Cutter numbers for the titles. I would prefer a letter for the language, because then all three forms of signatures will be different—books: Cutter numbers only; congresses: Cutter numbers preceded by simple Merrill numbers; periodicals: Cutter numbers preceded by one capital letter, e.g., Math., Pa27, a book; Math., 27, a congress; T. Math., E. Jo 27, an (English) journal.

The working of the system should be as follows: If a borrower looks up the book in the catalog, let him put the call number on the call slip, by all means; but if he knows the book or volume of periodical he wants, he will write a call slip and hand it in without having to go to the catalog. From the delivery desk or reading-room desk the slip is sent by compressed air to the distributing desk, where all the slips for books out are kept alphabetically by authors; the slip is taken through the trays, and, if the book is not out, the slip is sent on for expediting. If the distributor, who should be a man well versed in the library, either knows the book or has reason to believe that it is in the library, he will have no difficulty in choosing the district to which to send the slip; the man in charge, who knows his district well, since he has the work not only of fetching books, but also of returning them, will only have to seek for the book by author in the group to which it belongs. In case it is not found, the shelf-list will be at hand; if it is not there, he must send the slip back to the catalog department.

The result is that anyone who is able to read and understand the

slip should be able to find the book on the shelf. If he is not able to understand the title, anyone who can will have to write on the slip only the name of the group and the two first letters of the author's name. With this aid, anyone should be able to take out the book, even if it is in a very foreign language.

The catalog is still in the making, but the day is not far off when it will be in use. Then we shall see. If it works, and I am convinced that it will work, we shall have taken a good step forward in the right direction, in getting the books to the public with as little trouble to them and to ourselves as possible.

A. G. DRACHMANN

UNIVERSITY LIBRARY
COPENHAGEN, DENMARK

THE CLASSIFICATION OF BOOKS IN LIBRARIES¹

FOR some time it has been the conviction of the writer that the content of library-school instruction and of the chief published literature relating to book classification in libraries is considerably behind the theory and method as developed and employed in some centers of library service. It was therefore in a spirit of lively expectation that the writer approached Mr. Henry Bliss's new work *The Organization of knowledge in libraries*. The book's 335 pages are divided into fourteen chapters, of which the first five treat of "The Problem, the principles, structure and system," the next four are devoted to "Classifying, subject-cataloging, and bibliography"; while the last five are given over to "Criticisms of historic library classifications." There follow seven pages of "Bibliographical notes," and "Appendix: the proposed system outlined" in four pages, and an Index of eight double-columned pages.

Throughout the entire text, Bliss's remarks seem to be thrown against a definite background, which is the extant literature on book classification, notably that of Dewey, Richardson, Sayers, Mann, and the extant classification schedules, especially those of Dewey and the Library of Congress. The foundation of his whole treatment of the problem of book classification seems to rest upon the notion that the real (of sense) and the ideal (of intellect) are the same, i.e., identical for all practical intents. In the face of this rather frightful information the reviewer takes consolation from the following statement of Santayana:

I think that common sense, in a rough dogged way, is technically sounder than the special schools of philosophy, each of which squints and overlooks half the facts and half the difficulties in its eagerness to find in some detail the key to the whole.²

Believing that relation exists only in consciousness, Bliss quite naturally infers that *Relation* is the one supreme category of knowl-

¹ A review of Henry Evelyn Bliss, *The Organization of knowledge in libraries and the subject-approach to books*. New York: H. W. Wilson Company, 1933. Pp. xvi+335. \$4.00.

² *Scepticism and animal faith* (New York, 1923), p. v.

edge, which is virtually to "squint and overlook" the fact that there are many distinct and irreducible grounds and kinds of relation. So it comes to pass that Bliss from a position high up in a balloon, as it were, gives the reader of his book a wide panoramic view of book classification; but, on account of his remote and unnatural situation, he cannot come to grips with the immediate problems of the classifier. Melvil Dewey and many others have had their balloon ascensions; the library profession has long been familiar with the conspectus in that vague setting as seen by airmen and as revealed in bird's-eye views. But even panoramic views are limited in their scope by the capacity of the lens which takes the picture, and they have only a remote value for determining with practical accuracy such elements as substance, quality, relation, causality, time, and space. The problem of classification is to put these abstract notions of things into relation with their concrete realizations. Solve this problem, and the problem, as stated by Bliss in summarizing his first chapter, almost solves itself. The summarization of the problem by Bliss is this:

How shall a system of classification for libraries be provided to serve most uses and best interests, with maximal convenience and efficiency, with requisite economies, and within the capabilities of the classifiers and of the users of the libraries?²

It would scarcely be possible to state the problem in a more remote and traditional manner. Taken by itself one might readily think it were a sentence written by Melvil Dewey back in 1876. Surely it is proper to look for a more distinct realization of this problem after these many years of study and application.

In his second chapter the author sets forth, in seven pages, thirty numbered "Principles of classification for libraries" which he summarizes in the following statement:

As a systematic structural organization for valuable functional services, and especially for scientific and educational interests, classification of books, pamphlets, and other bibliographic material by their *subject-matters*, or contents, and also by their *forms* and *relations*, with regard to their main interests and purposes, and also to practical requirements and economies, attains to *maximal coherence and efficiency* by *subordination* of relevant special subjects to the comprehensive general interest, by grading the fundamental sciences and the major derivative studies in order of their *speciality*, by dividing and subdividing these in consistency with the organizations of knowledge established in the *scientific and educational consensus*, by the coördination of broadly

² P. 20.

related subjects under the more general subjects that comprehend them, and by collocation of closely related special subjects. By such organization and order and by *systematizing* the relations, by *references* to less closely related subjects and to *alternative locations*, by provision for *new developments* and by *adaptation* to changing requirements, such a classification continues to serve with maximal convenience, becomes more extensively *available* and relatively more *permanent* and tends to *standardization*. Its terminology should be consistent, it should have a *correlative notation*, expansible, adjustable, adaptable, and economical; and by means of this a complete *alphabetic* index should serve to locate all its subjects by their terms.⁴

It is unlikely that a student of the classification of books in libraries will find any substantial element in the foregoing statement with which he is not already familiar from his study of Dewey, Richardson, Sayers, and Mann; unless it be the definite and emphatic insistence that division and subdivision must be determined in the light of the organizations of knowledge established by the scientific and educational consensus. The latter element would undoubtedly be selected by the author himself as the book's most conspicuous and significant contribution to the traditional treatment of book classification. That divisions and subdivisions of books should be made in a manner consistent with the consensus, is in itself an indefinite and harmless statement. In a sense, there should be a general consistency between book classification and the consensus of scientific and educational opinion. But to insist upon the importance of this consensus while largely disregarding the necessary connection between the intellectual consensus and the objects of thought-processes is to overlook an essential factor.

Bliss frequently refers to some sort of a distinction between books and knowledge, but never states the relationship in clear and distinct terms. Whenever he discusses procedure, he does so without advert-ing to any distinction of relationship between books and knowledge. It is his consistent practice of admitting a distinction and a relation in *fact* and straightway ignoring the distinction in *procedure* which the reviewer considers a fundamental and predominant weakness in his whole discussion of the subject of classification.

In the third paragraph of the first chapter of his book Bliss says that "Books and their sources, and their writers and readers, constitute an intellectual community of manifold reciprocal influences."⁵ In that very statement Bliss virtually admits that the logical validity of knowledge depends upon the "conformity of the mind judging about

⁴ Pp. 45-46.

⁵ P. 3.

reality, or of the mind's judgment about reality, with the reality to which the judgment refers."⁶ By that same statement Bliss virtually admits, on the one hand, that the things ("Books and their sources, their writers and readers") which "constitute an intellectual community" are concrete and individuated, and, on the other, that the thing ("an intellectual community") constituted is abstract, unitary, and general. From this it seems to follow that the classification of concrete objects does not depend upon the abstract divisions of knowledge, but rather that the abstract divisions of knowledge depend upon the classification of concrete things.

The reviewer does not, however, contend that the method proper to the ordering of the concrete grounds of knowledge is the one which is proper to the ordering of the abstract consequents or judgments. He contends that the method of ordering things depends upon the nature of the things treated. Those which are abstract, unitary, and general do not lend themselves to any course of procedure other than division; whereas those which are concrete and individuated do not suffer any treatment other than assembling into classes. From another angle, the basis of the difference lies in the fact that concrete objects which can be seen and handled provide one with data (potentialities and properties) which afford a fuller knowledge of the objects than can be predicated of things which are known only speculatively and in the abstract (i.e., without regard to their material and formal aspects).

In the light of the foregoing remarks, Bliss's insistence that classification attains to its objectives "by dividing and subdividing these (i.e., "fundamental sciences" and "derivative studies") in consistency with the organizations of knowledge established in the "scientific and educational consensus" loses much of its pertinency and significance. Furthermore, the context in this instance—and regularly throughout the work—leaves the impression that Bliss's "consensus" of educational and scientific knowledge is a mere mental construction, a structure quite too feeble to bear the weight of a considerable number of actual books.

The third chapter of the book is devoted to a discussion of notation. Those elements of the problem which are purely mathematical seem to be quite worth while. But when it comes to the most critical element of the problem, the estimating of the number of combinations for which the notation must provide, the estimations seem to rest upon an aspect of the world of books as seen through the reverse end of a field

⁶ P. Coffey, *The Science of logic* (London, 1918), II, 210.

glass. Unquestionably, Bliss's theories on notation which culminate in his dictum on the "economic limits" are worth knowing, but this latter element regarding the number of combinations that may be needed can only be classed in the realm of assumptions until subjected to demonstration in its material and formal aspects. From what has already been noted regarding Bliss's restricted grasp of realities, the indications point strongly toward the conclusion that the assumption is ill-founded.

In the fourth chapter the author takes up "Systematizing and schedulizing." There is no summarization of this chapter, so the reviewer will select one of the first paragraphs for discussion. The principles of classification which Bliss regards as fundamental and which he insists upon time and again throughout his book are expressed here in the following manner:

Preliminary to systematic bibliographic classification is the structural *scheme*, or plan, which may be regarded as the conceptual, pre-existent state to be developed in the expansive system of functional schedules. This is virtually an organization of knowledge, of subject, terms, and symbols, of classes, divisions, and notations. The *scheme* should be explicit in a *synopsis* and an "outline" of the main classes, also of the notation and of the *systematic schedules*. A bibliographic classification of general scope and purpose would have a *general scheme* with its *general synopsis*. This should be relatively stable, because based on relatively permanent principles and persistent purposes; and it should be consistent with the organization of knowledge inherent in the scientific and educational consensus. But, if the scope and purpose be *special*, there would be a special scheme, adapted and developed for the special field; yet this should not be inconsistent with the general synopsis.⁷

This statement as it stands (vague as it must be without reference to his earlier work⁸ for the peculiar significance which Bliss attaches to many of the words and phrases) embodies the specific fundamental points, aside from notation, for which he stands. There are elements in these points which are not traditional; at least they have not had the same degree of importance attached to them as is now given them by Bliss.

Chief among the author's fundamental principles is that contained in the first two sentences of the passage just quoted. These two statements involve the assumption that the classification of books is a

⁷ Pp. 72-73.

⁸ *The Organization of knowledge and the system of the sciences* (New York, 1929). Pp. xx+433.

deductive or abstract science (in so far as it is a science) employing predominantly the synthetic method in a manner similar to the science of mathematics. There is no occasion to dispute the fact that all sciences aim ultimately at synthesis. But in approaching an ultimate synthesis it is but reasonable to select the most familiar objects of thought. In the abstract science it is usually the widest and most general aspects that are most easily grasped, but in the realm of concrete objects, such as books, it is the complex sense data which are found most available. Reason, therefore, dictates that one proceed from the complex to the simple.

On account of his enthusiastic attachment to "critical realism" and because of his deductive approach, Bliss fails to come to grips with the concrete and immediate problems of book classification. The reviewer supposes that one of the reasons why the deductive approach has been the traditional and widely accepted one is that the comparatively limited book collections available to the deductive classifiers were quite wide in their respective intrinsic scopes and that immediate classification was imperative. Inductive classification was therefore scarcely conceivable, since it implies immense collections of books, both intensively and extensively, and years of heroic labor on the part of many experts.

Other sciences have had the advantage of a wide and ready market for the products of their research. It was possible for them to build up a large body of experts, because the latter could make a living from the sales of their publications and from professorships, etc. By greater and greater specialization and by parceling out the fields of research among experts, the actual scope of available scientific material has become more and more manifest, and the outstanding characteristics of each field have been made clear and distinct. With this material in hand other experts have found it possible to synthesize masses of detail into larger wholes. From this one gets some notion of the stupendous courage and the unswerving devotion to scientific ideals that must have animated the men who conceived and undertook the Library of Congress classification. One appreciates more the tremendous amount of close study and long hours of application that have gone into its production. It is with a more kindly eye that one observes its weaknesses and it is with deeper emotions of gratitude and with fuller understanding that one uses so classical and definitive a work as the PA schedules.

Of the PA schedules, Bliss says under the page-caption "Philology admirable, but!"

We admire its erudition and marvel at its elaborateness. We shall never have time to study it adequately, nor even to make use of it; and we would turn it over to the catalogers, to whom the Prefatory Note hopes it will be a "source of useful information."⁹

Again:

In the preceding chapters we have set forth some of our ideas regarding the classification of Philology and of Literature. The main thing is that the several chief literatures should not be separated from their languages.¹⁰

It has been pointed out early in this review that Bliss's idea of book classification is grounded upon the correlation of classes and concepts. This principle could be taken as valid if he means thereby that the denotation of books in classes is correlative to the connotation of the concepts of those books. But Bliss does not concern himself either with the denotation of books in classes or with the connotation of the concepts of those books; he is persistently concerned with the denotation of divisions of general knowledge and the connotation of conceptual classes. This fundamental error regarding the *matter* to be organized is carried over into his notion of the method to be employed:

The structural scheme ["which is preliminary to systematic bibliographic classification is the structural scheme, or plan" and] which may be regarded as the conceptual, pre-existent state to be developed in the expansive system of functional schedules . . . should be relatively stable, because based on relatively permanent principles and persistent purposes; and it should be consistent with the organization of knowledge inherent in the scientific and educational consensus.¹¹

The method here suggested is no more pertinent or applicable to book classification than is the notion that libraries are "temples of knowledge" rather than collections of books. The all-important question, which Bliss's book raises in the mind of a classifier of books, is this: why does the author propose to discuss the problems of book classification and, straightway, enter into a discussion of the divisions of knowledge? Even if there were some kind of identity, why does he choose to discuss the problem in terms of knowledge rather than in terms of books? This is not a question of "logical" versus "arbitrary" procedure, but a question of deductive versus inductive procedure.

⁹ P. 266.

¹⁰ P. 267.

¹¹ Pp. 72-73.

It would be inconceivable that a writer on book classification could enter upon a discussion of the subject without considering these primary and essentially fundamental points were it not demonstrated in the book under review. The deductive procedure, called for by Bliss, runs counter to the scientific analytico-synthetic process. But, throughout his book, Bliss never discusses scientific method as such. As for the "scientific and educational consensus," where does it exist in any tangible synthetic unit, save vaguely in the minds of individuals where its make-up is as different as the individuals in which it is found? To arrive at it with any degree of satisfaction recourse must be had to preliminary analysis and subsequent synthesis, and the scope of the operation must be determined.

In his "Criticisms of historic library classifications," Bliss finds himself quite in his element when discussing those systems which were derived through deductive processes. He judges them from the point of view of their authors; and many of his observations regarding them seem to be both logical and pertinent. The coincidence of point of view, however, seems to have been more fortuitous than premeditated. For when he passes to a consideration of a system based on scientific analysis of the objects to be classed and on subsequent synthesis of results, Bliss rigidly adheres to his uniform point of view, quite ignoring the radically different nature of the system then in hand. The reviewer has in mind here the Library of Congress classification.

The Library of Congress, without fully realizing its ideal in any single volume of its printed schedules, has never departed from the basic principle that classification is an inductive process. The deductive principle is that "what holds good of a class holds good of every member of that class." This principle is useful in a realm where the raw material exists in classes; but it is to no purpose when the raw material exists as individual items—unclassed, but wanting and demanding order. This operation of putting things in order by discovering the common properties (inherent and adherent) is the only possible manner of classifying things which have not previously been classed. Once a thing has been classed, recurring instances of the same thing *may* be classified by simply referring it to its class previously discovered and determined.

From this it is not to be inferred that the common abstract properties once discovered leave no alternatives regarding the denotation of the resulting class. The classifier is at liberty to select from among the observed properties those which shall be indicative of the denotation

of the class. Independent classifiers are not likely to agree often in the selection of those attributes which shall constitute the foundations of individual classes. It seems obvious that those attributes will constitute the most substantial basis which will secure the maximum amount of likeness to other members of the same class, while securing the maximum amount of unlikeness in respect to members of other co-ordinate classes. In other words, that foundation of a class will be most frequently and enduringly useful which secures the largest degree of resemblance, similarity, and affinity; or, in still other words, that selection of attributes is best fitted for aiding in the acquisition of general knowledge which "enables us to make a maximum amount of assertion with a minimum number of propositions about the classes so obtained."¹²

It should prove interesting to see exactly how much assistance is afforded the classifier by the principle of deduction, namely, that "what holds good of a class holds good of every member of that class." Take the class "Democrats." How can the classifier *know* "what holds good of that class" unless he first finds out all the typical attributes of the group as a class? The only assistance Bliss offers is that one should not accept results inconsistent with the "educational and scientific consensus." Consequently a great deal of research of a scientific character becomes immediately necessary—first, to discover the characteristic attributes of a known class of literature and, second, to find out whether the educational and scientific consensus¹³ has taken cognizance of the existence of this class of literature, and, if not, to determine its rightful position in relation to the nearest group of literature on a subject aspect recognized by the educational and scientific consensus.

The classifier may not stop short of exhaustive research either in trying to find out the effective attributes of a class or in trying to establish what the consensus of educational and scientific opinion is in respect to those attributes. Anything less than an exhaustive research in either direction would constitute a violation of the definition of division, "*Analysis of the extension of a more general concept into less*

¹² P. Coffey, *op. cit.*, II, 126.

¹³ The reviewer employs Bliss's phrase "scientific and educational consensus" here to mean "the purely theoretical classification of the subject as represented by the scholarly, scientific material dealing with it from the standpoint of its real nature—the 'Ding an sich'" (quotation from a note to the reviewer, dated April 11, 1933, from Mr. Charles Martel).

general concepts."¹⁴ Furthermore, one of the rules of logical division requires that "The sub-classes be co-extensive with the divided whole."¹⁵ It may be asked what the whole of a class of books is. The whole of a class of books, for the classifier, is all extant books which would fall within the definition of the class, so far as they are knowable. This includes both those knowable through direct contact and those knowable indirectly through bibliographical instruments. Readers seeking to attain a balanced view of the changing thought regarding the world of reality have a right to find the books arranged in relation to existing literature instead of in relation to the limited and often unrepresentative collections in individual libraries. The time when readers depended upon the resources of a single library is past. And for like reasons it is an injustice to the personal dignity of the readers to force all that has been written into the strait-jacket of the changing current of educational and scientific opinion, thereby denying the less sophisticated the freedom of independent judgments.

Even if it were possible to know the actual extension of a class in the material realm of books without recourse to analysis by the inductive method, the proponents of the deductive method could not take the next step, namely, the division into subclasses, without having recourse immediately to inductive analysis. For it must be observed that:

. . . without *additional* knowledge of a class concept, *over and above what is contained in its connotation*, we could never subject it to the process of *logical division*. In order to divide any genus logically, we must know some note or aspect which is a *separable accident* of that genus, and which will serve, therefore, as a *basis* or *fundamentum divisionis*. And seeing that our knowledge of any such basis is not contained in what is postulated by *formal* logic, *viz.*, the connotation of the genus, but must come from an outside source, it follows at once that the process of logical division is always a partly material, never a purely formal, process. . . .¹⁶

Bliss nowhere insists upon broad classification. In fact, he demands close classification¹⁷ in science and history and he maintains that "Adequate knowledge of contents is *prerequisite* to proper classification."¹⁸ Yet, it plainly does not occur to Bliss that the acquisition of this "prerequisite" must make the work of the classifier predominantly one of inductive research—at least until the bulk of extant literature

¹⁴ P. Coffey, *op. cit.*, I, 112. (Italics ours.)

¹⁵ *Ibid.*, I, 118.

¹⁷ Pp. 11-12.

¹⁶ *Ibid.*, I, 115.

¹⁸ P. 83.

has been rather definitively classified and that on several different important bases.

It is suggested by the author of the book that:

The systematizer should have enough acquaintance with the sciences or studies and their branches to enable him to outline the chief coördinations and subordinations and to collocate the closely related specialties. On this knowledge and discriminating ability will depend the "efficiency" of the system. If the classifier does not know enough of the subject, he should inform himself or seek assistance or coöperation. One mind can hardly do justice, even in a decade, to the whole classification. For the second expansion, however, and for further subdivision special knowledge as well as expert mastery may be requisite, but a general knowledge of the subject, its divisions and classifications, may prove adequate. The classifier should be well grounded by well organized education and reading, and especially by a survey of the relations of the branches of knowledge.¹⁹

The foregoing quotation makes rather plain the fact that the deductive principle is quite satisfactory so long as the reasoner has no obligation to apply his class-concepts to the material world, but has merely to preserve consistency within the realm of his thought-processes. As soon as he tries to apply a deduction to objects in the material realm he commits himself to a belief in the uniformity of nature regarding certain classes of things in that sphere. Consequently, in order to avoid being driven to the analytic procedure which would enable him to justify such a belief, he must stop at those remote points to which his logical generalizations lead him and regard his sphere of work as limited exclusively to securing consistent thought-processes. In the realm of realities, the stages at which the deductionist arrives—with little expense of labor or effort—can only be vaguely useful unless both preceded and followed up by exhaustive research and analysis. There is need of analysis to make our class-concepts agree with the actual scope of the class. Analysis follows in order to establish the identity of each subordinate class (species). In other words, classifiers are compelled and driven to the laborious process of induction, first by the necessity of knowing, not vaguely, but definitely as possible, the scope of each particular class of literature, and second, by the necessity of knowing whether that class of literature needs further specific subdivision. Evidently effective book classification, i.e., such as will be generally applicable and in relative harmony with the significant data in regard to existing literature in each field of study, is

¹⁹ Pp. 83-84.

impossible unless the classifier first notes the significant items and makes his classification schedule with these in mind.

The reviewer would suggest the following explanation of the genesis and persistence of the prevalent popular notion that book classification is properly a deductive process. The language of current discourse provides, at least in a rough-and-ready manner, a logical grouping of the more common objects in the natural world and has thereby introduced order and clearness into the ordinary, simple concepts of everyday intercourse. Familiar objects are designated by terms which were formed to represent generalizations, groupings, classings, based upon primitive or popular inductions.

Ages before the logician or anyone else who deals with systems, had a hand in the matter, the necessities of common life had been at work prompting men to group the things which they observed. All names imply the recognition of groups, and a great number of names imply a subordination of groups, so that at the earliest stage to which we can transfer ourselves we find that we are already in possession of a rudimentary classification; and that we cannot even talk or think about things without an appeal to this.²⁰

It may readily be seen from the foregoing quotation how easily uncritical minds might be led to the belief that *everything* has already been classed, and to the assumption that by a common consensus a fixed hierarchy of classes already exists expressed in the language and literature of everyday usage. Having observed weaknesses in classifications based more or less upon these assumptions, Bliss suggests as a corrective that classifiers aim at consistency with the "scientific and educational consensus."

The fallacies in the foregoing are, no doubt, obvious to the reader of this review from the preceding expositions of the nature of the classifier's problem. It is not so much that the traditional assumptions are incorrect, as that they do not meet fully or approximately the exigencies of book classification.

In the first place, in regard to the subject element in books, the classifications provided in language of current usage do not fully or approximately take care of all the books on any subject. But every library wants to classify all its books—not merely those that are commonly found in other libraries. It is the uncommon books that cry out more than the rest for classification. If the classifier takes into consideration these unusual books in libraries, he practically embraces

²⁰ J. Venn, *Empirical logic* (London, 1889), p. 322.

all the books on any subject, and he makes a classification which other classifiers are most anxious to have. It is just this large inclusiveness of the Library of Congress schedules which makes them so decidedly attractive to classifiers. It was a great misfortune to the library profession that the classifiers of the Library of Congress were usually forced by uncontrollable circumstances to limit themselves, in the development of classes of books and in the ordering of those classes of books, to a consideration of merely those books in the Library of Congress. Anyone who has attempted to classify the literature in any single field knows that the ready-made classes in current language are only of the broadest type of classification and of a very remote utility. Such a person knows what a laborious task it is to arrive at the "scientific and educational consensus" regarding classes. The number of highly organized disciplines of research and study are few compared with the number of subjects represented in literature and demanding classification. It is simply a hard fact which must be faced; namely, that the scientific consensus in most subjects brings the classifier to a point only a little less remote than the popular consensus. Nor is this situation ascribable ordinarily to any positive absence of harmony among experts but rather to the fact that they have not taken up the problem of synthesizing the facts discovered or developed. Consequently the classifier, having some of the facts in the shape of a few books and desirous of serving the best interests of readers, is driven to research in order to put these few facts into their proper relation with all other known facts on the subject and not merely with a few isolated ones.

In the second place, even if language or educational consensus did fix with scientific exactitude both the denotation and the connotation of some particular classes of things, there would still remain between the lowest of the classes and the highest of the classes in their individual hierarchical scales "practically endless ways of framing and arranging the intermediate classes,"²¹ depending on the specific attributes the classifier elects to take as grounds of classifying in each instance that comes up for decision. It is notably at this point that classifiers need formulas, not for assigning books to ready-made classes nor for arranging ready-made subclasses under their proper ready-made classes—for such formulas are obtained only after the classes have been formed—but for assisting beginners in the discovery²² of sig-

²¹ P. Coffey, *op. cit.*, I, 122.

²² *Ibid.*, I, 129.

nificant classes of attributes or phases of a subject which afford the proper grounds for synthesis. The necessity of seeking the best, many possible grounds of synthesis forces the classifier, therefore, to preface synthesis with rather exhaustive analysis.

In the third place, even if language or the consensus of expert opinion did fix the connotation and the denotation of subject and even if it did determine the attributes to be selected as the most important grounds for the synthesis of subjects, there would still remain other elements to be analyzed by the classifier (if for no other reason) simply because he could not get rid of them. Bliss recognizes these elements. Unfortunately, the restraining shackles of his philosophy give him no choice in the matter; he is forced to synthesize these elements, blindly, that is, without knowing exactly what their material and formal content might be. He immediately sets up formulas on the basis of his limited information for application to all cases. Under the "Systematic schedules" the reader may find some of these formulas described. They conform in general with traditional opinion on the subject as set forth in the chief published treatises on book classification.

The setting up of formulas often rids one of complicated situations and saves much worry and labor. But formulas presuppose a rather thoroughgoing acquaintance with the objects to which they are applied and a decidedly restricted zone of application. Nor is it safe to assume that these requirements are met. It was a formula which led the man with eight white horses and two black horses to kill all the white horses when he observed that the white horses ate more than the black horses. Formulas depend for their usefulness upon repetitions of the particular applications from which the formulas were derived.

How does it happen that Bliss can belabor the Library of Congress schedules for having "over twenty pages, closely printed, of schedule for Aristotle alone, and fourteen for Homer, and ten for Plato"?²¹ Bliss answers the question himself in his very next sentence. "Is it conceivable that the literature, however extensive and various, could require all that complication?" If it were conceivable, without previous investigation, schedules of classification would lose much of their present significance. The method of the author, therefore, is to "conceive" classes. The method of the Library of Congress is to investigate the literature and to "discover" the classes. What is inconceivable to the reviewer is that Bliss should continue to deny the facts after

²¹ P. 266.

seeing the results of the years of painstaking research and scientific investigation. He says:

For individual authors (excepting for a few of the greatest) it is the wrong principle to use classmarks or numbers other than those of Cutter order-numbers or some other order-notation. In other words individuals should not be specified as classes; they should be *classified* in classes and *arranged within* these classes.²⁴

Professors of book classification in library schools will be forever indebted to Bliss for this capital illustration of the distinction between book classification and the classification of knowledge, between the classification of material things as they exist in nature and the classification of the limited conceptual knowledge as it exists in individual minds. It is one of those things which fairly defies explanation until one can illustrate it by means of a concrete example.

If books in the history class merit classification, why do not, with equal right, the books in the Aristotle class? If the Aristotle class should be given merely a Cutter number in some broader class, why should not history be given merely a form number in, say, anthropology or sociology or political science? If the high-school student merits to have all the books in the high-school library classified, by what manner of reasoning is the Aristotle student denied similar courtesy? Are the books in any class visualized by Bliss bound by any stronger ties of relationship than those in any class represented under Aristotle by the Library of Congress? Are the books in the chemistry sections of the stacks any more distinct and individuated than in the Aristotle and Plato sections? Are the contents of the books in the different subclasses of chemistry relatively more distinct than the contents of the books in the subclasses of Aristotle? There are no two ways open, whether from the point of view of the library serving books to readers or from the point of view of the reader seeking books of the library. The objects that are handled are books; and it is books which must be classified, though the subject matter is taken as the primary guiding attribute in determining the sequence of the books upon the shelves. The facts reach up out of the books themselves and compel recognition.

In brief, the distinction between the classification of books and the organization of knowledge lies first in the mode of existence or the condition in which the raw material exists. In the classification of books

²⁴ P. 267.

every abstract class idea is correlated to a concrete realization of it; in the organization of knowledge there can be no correlation of the abstract with the concrete, but merely a division of an abstract whole into immaterial parts. The second distinction is found in the procedure: classification of books is necessarily synthetic; organization of knowledge can only be analytic.

The reviewer cannot bring within the limits of this article an adequate exposition of the points he has raised in criticism of the book under review. A more complete and more thorough description of the application of the inductive method to book classification must be left to another time or to other writers.

In regard to the reviewer's remarks about the Library of Congress classification, it should be understood that he has no commission, authority, or permission to speak for the Library of Congress or for any of the persons associated with the production of its schedules of classification. It has not been his purpose or intention to offer those schedules as models; it is not difficult to find fault with the schedules, and it is not likely that any critics recognize their weaknesses so clearly and fully as the men themselves who made the tables.

The aspect of the Library of Congress classification schedules with which the present writer has not been able to find fault is the theory and method upon which they are grounded. They seem to be unimpeachable; and it is a most singular and unfortunate phenomenon that the profession as a whole has remained oblivious, during the past thirty-five years and apparently to this day, of the true nature of the work being done in the national library.

It would seem that a review article should conclude with a concise judgment regarding the value of the work under consideration. Unquestionably there exists, to the best of the reviewer's knowledge, no more thoroughgoing discussion of so many significant points of interest to the classifier. But, at this early date, it is difficult to forecast or to estimate either the amount of good or the amount of damage it may cause in library classification work.

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CLASSIFICATION PROBLEMS IN AN INTERNATIONAL SPECIAL LIBRARY

THE International Institute of Agriculture at Rome belongs to the older "generation" of international bodies. Inspired by the initiative of an American citizen and fostered by the benevolent generosity of the king of Italy, it came into life through an international convention in 1905, in which forty nations participated, and which practically all other nations joined subsequently. The activities of the Institute began a few years later. The primary objects were: the collection and distribution of statistical information on agriculture; the study of rural, social, and economic questions, and of the scientific and practical side of agriculture; the gathering of information on the agricultural legislation of the different countries; and finally, the study of plant diseases and plant protection. All these problems were to be studied from an international point of view, and therefore, research material had to be provided from all over the world. From the beginning it was felt that a comprehensive book collection, especially in the subjects to be treated by the Institute, would be an indispensable tool for its functioning. The basic stock of this library was contributed by the various member governments. Even today government documents make a considerable part of the library acquisitions. From the beginning, however, the librarians of the Institute were far-sighted enough to consider not only the direct needs for the current work of the Institute, but did not hesitate to build up a collection so comprehensive in scope, so rich in material, so international in character, that the library may properly be called "the world-library on agriculture and allied subjects."

The first decisions regarding the organization of the library service were determined by the following considerations. It was recognized very soon that apart from the alphabetical author file a subject catalog was a primary requisite in this highly specialized library. There was the question whether to arrange the subjects alphabetically or systematically. It was felt that the international character of the library clientèle (French is the official language, but the Institute's staff is international, while most of the readers from outside are Italians) would be a serious obstacle for the efficient use of any alphabetical

scheme. The alphabetical subject catalog, or eventually the subject headings of a dictionary catalog which serve the same purpose, would have to make use of several languages, because an alphabetical file of subject headings can only be used to full advantage by readers who are thoroughly familiar with the language used, indeed, I venture to say, only by readers whose mother tongue is used in the subject catalog. A classified catalog was therefore decided upon.

The next step was to choose a classification scheme for this catalog. The needs of the library called for a system which was very detailed and comprehensive in the special field treated by the Institute—furthermore, one international in character and modern in its technical details. Since there was no adequate special scheme for agricultural sciences in existence, there was no other choice but to adopt one of the big general classification schemes then in existence. The advice of the International Institute of Bibliography at Brussels was asked, and it was natural that this body strongly recommended the adoption of the Decimal Classification in the Brussels version (*Classification Décimale*), which was then a few years old and seemed to correspond very well to the needs of the library. The question of classification was, however, not treated from the library point of view only. The enthusiasm for the classified arrangement of all other documentary material (archives, bibliographical bulletins, records of the various bureaus of the Institute) was so great that two General Assemblies, those of 1909 and 1911, declared themselves in favor of adopting the C.D. for all the branches of the Institute.

At the time of the first experiments of the Institute with the C.D., there were no other libraries with long experience with this classification scheme. The Institute had, therefore, to gather its own. It was presumed that the classification routine would function automatically and that the classifiers with their bulky classification tables and the alphabetical index volume in hand could be left to themselves. It is not difficult to see why the result was disastrous. No classifier who ever makes practical use of the C.D., fails to receive a joyful satisfaction when he succeeds in establishing—by means of the various combinations of numbers and auxiliary tables—a class number, which, however complicated it may be, meets so closely the subject treated by the publication that it resembles a microphotographical reproduction of its contents. The classifiers of the Institute, who had full freedom to practice their creative powers in building up C.D. numbers to their hearts' content, took full advantage of the situation and

created—always with the best intentions, of course—new class numbers without any restriction. The C.D.'s alleged advantage of indefinite power of expansion by use of combinations and auxiliary subdivisions turned out to be a most serious handicap, because the result was not only an "atomization" of material in minute class units, which were often represented by a single card only, but also, which is worse, a dangerous inconsistency in applying numbers to the same subject. This happened not only in the library but also with the various other records for which the C.D. was used. Besides, after a closer inspection of the C.D. tables had led to the conviction that the class of Agriculture particularly contained a series of inconveniences and weaknesses, various efforts were made to find a remedy by introducing illegal modifications and expansions into the scheme, unfortunately without the necessary co-ordination of work among the various agencies using the C.D. tables.

The years of the World War and those following were a period of severe internal crisis for the Institute. The staff had to be curtailed considerably and many activities either had to be stopped or intrusted to less qualified persons. The existing classification troubles, far from being eliminated, continued and increased. In 1921, when Mr. Paul Otlet, one of the old champions of the C.D., was called by the Institute to report on the question of documentation, he described the situation as follows: "Actually four systems of documentation are used in the Institute, with four systems of classification, all derived with more or less divergencies from the C.D." The collapse was unavoidable. The records of the various offices of the Institute which were originally based on the C.D. abandoned it one after the other, and the only place where the C.D. is still in use at present is the classified catalog of the library.

In 1924 there began a reorganization of the whole library, which was made possible through financial support from the Rockefeller Foundation. An American librarian, Mr. J. G. Hodgson, was appointed for a period of five years in order to improve and modernize the library service, the defects of which were strongly felt. Mr. Hodgson did not fail to realize the importance of the solution of the classification problem. His plan was far-reaching and radical enough; he planned to recatalog and reclassify the whole library collection. Unfortunately, the funds available for reorganization purposes were limited, and the librarian did not always meet with the necessary understanding and support. The result was that the reclassification

could not be completed and the situation was in some ways even worse than before. A further element of inconsistency was introduced by a newly modified classification practice, which, although sound in itself, was in certain cases in contradiction to practice followed in previous years.

During the reorganization period a further very important change in library methods was effected. The C.D. numbers, which had served previously only for arranging cards in the catalog, were used from now on for shelf marks also. The intention was to allow free access to the library stacks, and the very close classification, which resulted from an unrestricted use of the auxiliary tables of the C.D., was to facilitate the searches made by readers in the library collections. These eventual advantages were, however, illusory, because the very unfavorable space conditions prevented any convenient access to the bookstacks. Furthermore, the great number of books, which are constantly in use in the various offices of the Institute and are therefore temporarily missing from the shelves, renders any search for material by consulting the shelves instead of the catalog, a futile and halfway measure. On the other hand, there was the inconvenience of a very long, awkward, and complicated notation, a weakness which is recently recognized by the C.D. authorities themselves, who no longer insist on the use of C.D. numbers as book marks.

It is true that a certain simplification of C.D. numbers as book marks was provided for by the Institute's library. But since the use of country and form subdivisions was almost unlimited, the number of classes was out of all proportion to the number of books belonging to these classes. The practice of constructing new numbers and, accordingly, new shelf marks for subjects which may perhaps occur once in five years was continued.

The present librarian, whose activity was hampered by the new financial crisis which the Institute had to go through, could not think of taking the risk of introducing radical changes by establishing a new system for the classed catalog. Reclassification is a measure which is seldom worth all the trouble and the immense amount of work it involves. Therefore, it was necessary to think of other remedies. Two quite important changes in classifying practice have been introduced which are hoped to be final and permanent modifications. Both changes have the common purpose of simplification without breaking too much with the tradition of previous periods. The first modification is in regard to shelf marks. In order to avoid numbers of excessive

length, a selection was made of certain recognized subjects which were marked with colored signs in the classification tables. Other subjects, not recognized, were to be strictly avoided. Unlimited use of relation numbers had already been abandoned previously. There are only a few combinations (e.g., 31:63, 37:63, 63:9, 63:91, etc.) which are so frequently used that their use as shelf marks was maintained. All form and country subdivisions for shelf numbers were, however, eliminated, except for a few subjects on which material is so abundant that a further subdivision even on the shelves seemed to be advisable. But the bulk of recognized shelf numbers is freed from the ballast of auxiliary subdivisions. Cutter numbers are also shortened as much as possible.

A second measure concerned the application of C.D. numbers for the catalog. The system of complete freedom, that is, the unlimited use of the expansions and auxiliary tables of the Brussels scheme, was definitely abandoned. In a similar way, but on a much larger scale than for the shelf numbers, a standard list of recognized subjects was established, and those new additions to this list which seem unavoidable must be approved by the librarian. Subdivisions by form and by country are allowed, but even here a certain standardization and restriction have been necessary. The formation of new relation numbers, which are particularly dangerous if not controlled, is entirely prohibited. However, in order to be as consistent as possible with the former classification practice, the old relation numbers most frequently used have been maintained. Other old relation numbers of lesser importance were abandoned. For a certain number of important subjects, for which the former treatment was far from being uniform, it was necessary either to establish new numbers or to adopt new interpretations for existing ones. A fundamental difficulty was, for instance, the treatment of the various subjects which fall under the general heading "agricultural economics." The old edition of the Brussels scheme is not to be blamed for the failure to provide adequate class numbers for these subjects, because, at the time of publication of the first edition, agricultural economics was scarcely recognized as an independent branch of science; it was only after the war that it found rapid recognition, expansion, and consolidation. The original provisions of the old C.D. for this subject (and it must be said that the new edition shows little improvement over the old one) are very meager. There was only the hypothetical number [338.1] with the note "class under 338.63" for "*Economie agricole en général*," then 331.74 for

Agricultural laborers, 333.5 for Agricultural property, and a certain number of half-technical, half-economic subjects under 63.191 and 63.192 (Farming systems, Farm management, Geographical aspects). All other subjects, like Agricultural marketing, Co-operation, Farm accounting, Rural sociology, and the like, had to be treated by means of relation numbers. The result was that the various branches of rural economics could not be brought together, but were scattered not only through many places in the 300's, but also under 63.19 and other numbers, and everywhere interrupted by other material. The arrangement of these subjects was therefore anything but logical and certainly just the opposite of what a useful classification should be. Obviously, a complete remedy of this situation could not be found without revolutionizing the whole catalog. However, as mentioned above, by the introduction of new numbers or reinterpretation of existing ones, it was possible to improve the situation to some extent. The more important modifications were the following:

- 308 used for Rural sociology (7 subdivisions)
- 331.74 Agricultural labor (7 subdivisions)
- 333.5 Agricultural property (11 subdivisions)
- 334.6 Agricultural co-operation (4 subdivisions)
- 338.1 Agricultural economics (including Farm management,
Farm accounting, Evaluation; 20 subdivisions)
- 338.5 Prices (4 subdivisions)

Any classified catalog needs, of course, as an absolutely necessary supplement, an alphabetical index which refers from the subject to the corresponding class number. In the Institute's library this necessity was overlooked for many years, probably on the supposition that the printed index of the Brussels system would be used by readers in search of particular subjects. However, this has not been the case, probably because the general index of the C.D. contains too much material without interest for a highly specialized library and gives, of course, no references to the various relation numbers and modifications adopted in the library. It was therefore necessary to create an alphabetical index of the classification—and it was an advantage that the compilation of this index could take place before the last modifications of the system were introduced. The index could then be made to serve not only as a guide to the class numbers in actual use, but, at the same time, as a link between old and new classification practice. At present the alphabetical index exists in French only, the Institute's

official language. It is hoped, however, that it will be possible to translate it later into other languages—English, German, and Italian among the first.

The Institute was always aware of its important tasks in the field of the international bibliography of agricultural literature, which it should be able to fulfil better than any other institution on account of the wealth of material which is regularly received in its library from all the countries of the world. In recognition of this fact, a bibliographical bulletin was published by the Institute's library between 1909 and 1914. This weekly publication not only contained the book accessions of the library but also references to periodical articles. The titles were arranged by subject, and here again the C.D. was used as a system for arranging the titles and failed to work in a satisfactory way. There are friends of the C.D. who point out that, while the application of that system for library classification may be of secondary importance, its strength lies in its usefulness for bibliographies. I hardly believe that this statement corresponds to general experience. It is necessary to distinguish between general bibliographies and bibliographies which deal with a particular subject. Besides, it goes without saying that the need for grouping material varies with the amount of material handled. A monthly bibliography of current literature does not need a classification scheme which goes into the most minute details. On the other hand, a bibliographical manual of hundreds of thousands of titles must necessarily follow a system close enough to permit rapid and efficient consultation. Furthermore, it is an undeniable fact that most branches of human knowledge may be looked at from several angles, according to the point of view of the observer. Topics which the agriculturist will regard as his own domain will offer equal interest to other sciences. Many publications in an agricultural library—or many titles in an agricultural bibliography—will directly concern the botanist, the geologist, the economist, the statistician, the entomologist, and the veterinarian. But any one of these specialists has *a priori* a particular way of grouping the subjects of his interest. It may happen that a publication, let us say, on soil science will occupy very different places in the logical thinking and grouping of a geologist, an agriculturist or a botanist. The compiler of a general bibliography, of course, is compelled to strike a compromise between the various conceptions of specialists. But, when one has to do with a bibliography which is to be consulted primarily by

specialists and not by the general reader, it would be unwise not to adapt the classification scheme to the way of thinking of the limited public concerned with the speciality. As a matter of fact, this has always been the practice of special bibliographies in the past and there is little reason to depart from it for the sake of a general uniformity of classification which is very difficult to obtain and has little practical advantage. It is not a secret that the practical application of the C.D., which, in theory, means uniformity, standardization, and universality, varies considerably from one user to the other. First of all, there are the great discrepancies between the American D.C. and the Brussels system, which make, for instance, the direct use of the decimal numbers which now appear on the printed cards of the Library of Congress quite impossible for users of the Brussels system. But even if we do not consider the American practice at all and take into account only the application of the true C.D., I am afraid it will be difficult to find two libraries or two bibliographical services which follow exactly the same principles. It is hard to understand why the ideal of international uniformity of classification practice can induce bibliographers to abandon the good old practice of adapting classification schemes of the special sciences directly to the practical needs of those sciences. Within a particular science, it may be possible to come to a certain standardization of classification practice by international agreement. I do not even exclude the possibility that some parts of the C.D. may correspond so well to the needs of some of the special fields of knowledge¹ that the specialists of that field will decide to adopt the C.D. to facilitate international collaboration in the field of bibliography. But it seems to me a serious mistake to enforce the adoption of the C.D. under all circumstances even in cases where its weakness is quite evident, as in the case of agriculture.

It does not seem to be necessary to point out in detail why the original main divisions of the class 63 in the Dewey system, which have been maintained from 1876 on up to the last editions of D.C. and C.D., do not correspond to the modern conception of agriculture and to the need of special bibliographies in this field.² When the writer of this article was confronted with the problem of reviving the bibliographical activity of the International Institute of Agriculture, he felt he could not take the responsibility of recommending the C.D. for that pur-

¹ This seems to be the case especially in the field of engineering and technology.

² Cf. the writer's former articles in *Zentralblatt für Bibliothekswesen*, XLVIII (1931), 177-81 and *Agr. Libr. Notes*, VII (1932), 71-75.

pose. A careful study³ of the various classification systems for agriculture and related topics persuaded him that none of the existing schemes would be adequate for a comprehensive bibliographical enterprise of international character. Consequently, there was nothing to do but to create a new system which was based directly on the needs of the agricultural specialist. The first draft of this agricultural classification scheme is contained in the study mentioned above. The solution was, however, not wholly satisfactory, and an attempt was made to improve, enlarge, and remodel the original scheme according to the experience of the library of the International Institute of Agriculture. A second draft of the scheme was distributed by the Institute in mimeographed form as a "preliminary edition" in 1930.⁴ This draft was sent out to a considerable number of institutions and individual experts in various countries in order to invite criticism and proposals for further improvement. The answers received formed the basis for a third revision, which resulted in the present form of the scheme. This may be regarded as final, as far as finality can be claimed by any classification scheme or, one may add, by any human achievement. Since the final edition will be published early in 1934, there is no need of detailed description. However, a few features which may possibly be of general interest may be mentioned. First of all, the classification scheme is one of the very few which are drafted in several languages, i.e., English, French, and German. There is little doubt about the utility of this specific feature, particularly since complete alphabetical indexes are provided for all three languages. The scheme may therefore, apart from its original purpose, be used as a systematic dictionary of agricultural terms. Besides, the names of cultivated plants are also accompanied by the scientific Latin terms according to the *Index Kewensis*. With the great variety and uncertainty of common plant names this feature will prove to be particularly helpful. The notation is simple and as short as possible. The whole field of agriculture is divided into 15 main classes designated by capital letters, as follows: A, Agriculture in general and auxiliary sciences, B, History and geography of agriculture, C, Agricultural education, D, Agricultural administration and legislation, E, Social and economic aspects of agriculture, F, Plant production in general, G, Special field crops,

³ "Classification problems in agricultural libraries," University of Illinois thesis, 1927, pp. 151.

⁴ Institut international d'agriculture, *Système de classification des sciences agricoles*, Edition préliminaire (Rome 1930), pp. 76.

H, Horticulture, K, Forestry, M, Animal husbandry in general, N, Particular domestic animals, P, Rural buildings and land development, Q, Agricultural machinery, R, Technology of agricultural products, S, Game, hunting, and fishing.⁵

These main classes are subdivided by a decimal arrangement, but every effort has been made not to use up the nine decimals, wherever later additions or insertions may prove necessary in the future. Therefore the rigid use of nine subdivisions, which is one of the outstanding criticisms against the decimal arrangement, has been largely avoided. The use of auxiliary subdivisions, which form the most characteristic feature of the C.D. and at the same time the strength and the weakness of this system, has been limited and simplified as much as possible. The procedure is as follows: a given subject of the main tables may be further divided in two different ways—(1) by geographical, (2) by analytical subdivisions. The geographical subdivisions are made according to the Brussels scheme, that is to say, by use of parentheses and the application of specific country tables. On the other hand, the analytical subdivisions result directly from the main tables by substituting a small letter for the capital letter. The subdivision formed in this way is simply added to the main notation, and theoretically there are as many analytical subdivisions possible as there exist classes in the main tables. However, a close restriction is quite necessary in order to avoid a confusion similar to that caused by the unlimited use of the auxiliary tables of the C.D. A selected list of the most frequent subdivisions has therefore been prepared for the convenience of users. A few examples will make the point clearer. F 4 is the notation for Fertilization, f 4 is the corresponding analytical subdivision, meaning fertilization of a specific crop. G 11 means Wheat, and therefore G 11 f 4, Fertilization of wheat. Or another case: E 53 means Co-operative Marketing, R 7 Dairy industry, therefore R 7 e 53, Co-operative marketing of dairy products. To all these combined numbers a country subdivision may be added by use of parentheses, e.g. R 7 e 53 (111). The analytical subdivisions also contain certain headings, borrowed from the main class A (General), which fulfil the functions of the so-called form subdivisions of the C.D., e.g., a 1 Bibliography, a 4 Periodicals, a 52 Society publications, a 55 Congresses. In certain classes, where a large number of clearly defined individual subclasses has to be grouped, a subdivision by

⁵ The letters I, L, and O have been deliberately omitted for evident practical reasons (confusion with numbers).

alphabetical arrangement has been provided for. Such is the case with injurious plants and animals in Phytopathology and with specific forest trees in Dendrology. In these cases, the alphabetical arrangement is by scientific Latin name.

The experience gathered by the establishment of a large card index called the "International repertory of agricultural bibliography" shows that by the application of the new system the main difficulties of the C.D. can be avoided, although the advantages of detailed classification and almost unlimited power of expansion were retained. It was found that the two schemes of subdivisions in the new classification system perform the same service as do the nine different "subdivisions communes" in the Brussels scheme. In both classification systems, however (and I suppose this holds true for any scheme which is detailed enough to offer the possibility of variations), it proved necessary to take every possible precaution in order to warrant absolute consistency in the use of the main tables and to limit closely and rigidly the use of auxiliary subdivisions.

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THE REORGANIZATION OF THE LIBRARY OF A SMALL COLLEGE

THE college library has been given a good deal of attention during the past few years, and so—especially after the thorough and comprehensive treatment by Dr. Randall—anything further on this topic might seem superfluous. It has been suggested, however, that it might still be of interest to recount the actual experiences of one of the smaller institutions that has been attempting to adjust its library conditions to the changing needs of the times.

From the very beginning of its existence in 1861, Luther College has given considerable attention to the development of the library. It was therefore to be expected that this college should be among the more progressive, in its own section of the country at least, in giving its library the more adequate support that modern educational methods make desirable and necessary. When, in 1920, the question of reorganization came up, the library had reached a total of 22,000 bound volumes and approximately 12,000 unbound books and pamphlets. In addition, there was a gift collection of about 4,000 volumes received some years previously that had not been formally incorporated into the library.

As a liberal arts college with emphasis on the classics, the library naturally reflected this character. It was accordingly strongest in philology, literature, history, and the humanities in general. It also had a large collection of general periodicals in English, including complete, or practically complete, files of the more important American and British periodicals which began publication in the early part of the nineteenth century. But possibly the field that it had developed to the greatest extent, as might be expected from the fact that it is the oldest educational institution established by Americans of Norwegian nativity or descent, was that of Norwegian literature and history and, more particularly, that part of it produced by or dealing with this group in America. This type of material, including not only books and pamphlets but also quite extensive files of Norwegian-American newspapers, church records, letters of pioneer clergymen, and other similar historical source material, was maintained, in part,

in the library proper and, in part, in various smaller collections on the campus. A considerable portion of it had been stored in various rooms and closets in the college buildings, and some of it was not found until several years after the reorganization had begun.

In the matter of organization there was much to be desired. The library proper had been classified and cataloged in the late nineties by a person just out of library school. At that time the collection numbered only about 10,000 volumes; and, although a modified Dewey Decimal system had been used, proper provision for expansion in the classification had been neglected. Furthermore, no trained person had been retained in the library from that time on, and both the classification and the catalog had become so inconsistent and jumbled that it was evident that this phase of the work had to be entirely done over.

The building situation was better, at least in prospect. While the library was still crowded into five rooms in the administration building, complete plans for a separate library building had been worked out. The building was completed the year after the writer entered upon his duties as librarian. Mr. J. C. M. Hanson served as a member of the building committee and his influence undoubtedly had much to do with making this building adequate and convenient, particularly from a library point of view. While no detailed description of the building will be attempted, it may be mentioned that the reading-room, occupying the main part of the second floor, provides a seating capacity for ninety, about one-third of the present student body, and shelving for about 7,000 volumes. The stack room, with provision for four stories, has in its three completed sections a capacity of from 70,000 to 75,000 volumes.

Such, in brief, were the library conditions when the present librarian took charge in the fall of 1920. It might be added that no provision for assistants had been made, except that one of the younger members of the faculty, who had helped the previous librarian in his declining years and who had obtained a little library experience in connection with his graduate study, continued to give part of his time to the routine work of the library during the first school year. The first few months were occupied in making a thorough survey of conditions and in working out plans, the reorganization proper not getting under way before the summer of 1921. After consultation with the president, various members of the faculty, and several librarians, a fairly detailed plan of procedure was decided upon with the following objectives in view: to develop the book collection; to organize and make

available the material; to bring the students in contact with the books.

The first of these included the building up of a good reference collection. This was particularly urgent both for the purpose of giving better service to the students and to make possible the reorganization of the catalog on a higher plane. For, while the library had a good collection of periodicals, a fair number of general encyclopedias, and was subscribing to the *Oxford dictionary*, it was comparatively weak in the field of bibliography and biography; also, except in the case of education, in reference works on special subjects. The procuring of this type of material was, therefore, concentrated upon as a first step. Fortunately, works of this sort could be obtained at very reasonable prices at this time, especially from England and Germany. This made it possible to build up a balanced reference collection at a comparatively low cost.

The selection of the books both for the reference collection and those needed for filling gaps and developing the library as a whole was made in close co-operation with the various members of the faculty. This was done more through personal consultation by the librarian with the individual faculty members interested in the respective fields than through a strictly departmental system of recommendations. In other matters pertaining to the development of the library, the librarian has likewise received the co-operation of the other members of the faculty to a high degree. Possibly the one thing more than any other that has helped bring this about is the fact that from the very beginning the librarian was given full faculty ranking.

Another factor which has facilitated the reorganization work, especially in book purchasing, has been the elasticity of the budget. There has been a great deal of discussion concerning the wisdom of dividing the book fund by departments. Such practice has not been followed at Luther College. Practically all the resources have been placed in one general fund. This has resulted in the elimination of much unnecessary bookkeeping and other detail and—what is probably more important—has made it possible to develop such parts of the library as needed it most and to obtain some of the more expensive sets when good opportunities presented themselves without going through an unnecessary amount of red tape. In order to keep the proper balance, an approximate account of what is being spent on each larger subject is kept and the collection is given a general check-up periodically.

At this point it may be in place to touch upon the problem of departmental libraries. While several departments had gathered small collections in their classrooms or laboratories, only one, the chemistry department, had what could be considered a departmental library. The other collections, although nominally in charge of some instructor in the respective departments, had not been given proper care, with the result that books could not be found when wanted and many were lost. When the new building was completed, therefore, everyone concerned was entirely willing to have them turned over to the library and incorporated as an integral part of the general collection. The case of the chemistry library was somewhat different. Most of the books had been purchased with special departmental funds, and it had grown to larger proportions than any of the other collections. There were also somewhat better shelving conditions in the chemistry laboratory and—in common with the other natural-science departments—the chemistry department needed to have a number of books near at hand for constant reference. Here too, however, the supervision of the books was a constant problem. There was confusion between books circulated from the general library and those from the department; and an undue number of books were being lost. Arrangements were accordingly made with the department that this collection should also be made a part of the general library, but that such books as were needed for constant reference by the department should be placed in the laboratory as a more or less permanent loan. The books thus loaned are for use in the laboratory only, and the collection is checked by the librarian at least once a year. It is rather interesting to note that the number of books in this collection is being decreased from year to year rather than increased and that the students in this department are using the general library more and more. The same loan privilege has also been accorded other departments maintaining separate laboratories but has not been used to any great extent.

One of the major tasks was, of course, the organization of the material. This involved, in addition to handling all new accessions, the organization of the newspaper and manuscript collections, the cataloging and classification of some 6,000 volumes not previously handled, and the recataloging and reclassification of the rest of the library. The Library of Congress system of classification was decided upon. What determined this was not alone the preference of the librarian. Several members of the faculty had come in contact with this system in their graduate study and had become impressed by its advantages

and its adaptability to a college library. At first it was thought that the system might be abridged somewhat. In fact, the writer had earlier begun such an abridgment out of purely academic interest. However, when the problem was studied more closely with the actual application of the plan in mind, the advantages of using the Library of Congress system in practically its complete form appeared to outweigh any advantages of simplicity that might result from such an abridgment. As the work has progressed and the library has expanded, the application of the system to the greater part of the collection has increasingly borne out the view that the library is being best served by following the printed schedules quite closely. The few modifications used have been mainly the following: the combining of language subdivisions in periodical and some other form divisions; the placing of individual works of fiction in English with other works of individual authors in their respective literatures instead of in PZ; and the placing of collective national biography in the alternative provided in CT instead of in D-F.

In cataloging, a high standard has been aimed at. Printed cards from the Library of Congress and elsewhere have been made use of whenever available, and Library of Congress practice has been followed quite closely in other entries, both in matter of form and, especially, as far as the library's research facilities permit, in accuracy and fulness of entry. Entries for which printed cards are not available probably form a larger proportion here than in most undergraduate college libraries, owing to the greater number of books in foreign languages, particularly the Scandinavian. In addition to a full dictionary catalog a partial classed catalog has been formed by expanding the shelf-list through insertion of added entries for books of broader interest than the particular class or subdivision under which they may be classified. While this has been applied to the whole library, it is particularly useful in bringing out the Norwegian-American material. Aside from a small gift collection the books and pamphlets belonging to this material are classified under their respective subjects but are brought together in a classified list. This is done by making an extra card for each publication which carries the letter Y (not in the L.C. scheme) above the call number and then arranging the whole by call numbers. The special gift collection required by the terms of the gift to be kept together and consisting of books of comparatively little or no interest under the subject—or which already are duplicated there—is arranged in a rather broad classification also under the class letter

Y. The shelf-list for this, combined with the added entries for the other Norwegian Americana, which it logically follows in filing, thus forms a complete list of all the Norwegian-American material.

To some it may seem that too much emphasis has been placed on the cataloging and classification phase of the library organization, these being only means to an end, and that the end itself—that of getting the students to use books—is lost sight of. To be sure, the catalog and system of classification are only tools, but they are, nevertheless, the basic tools for both the staff and the students. Next to the character of the collection itself and the personnel of those that administer it, it is on the standard and accuracy of these tools that the efficiency of the library depends. And this is no less the case in the library of a small college where it is possible to get the average undergraduate in closer touch with the library organization. If the constant increase in the use of the books corresponding to the progress of the re-cataloging process experienced in this library is any criterion, it certainly would indicate that the character of the catalog and classification has made a very decided difference in the reaction of the students toward the library. This is also reflected in a somewhat different way in the number of students and graduates of the college who have become interested in librarianship as a life work during the past ten years. Practically as many have entered the library profession in this period as in all the previous sixty years existence of the school. Furthermore, this interest has in no way been stimulated by propaganda but has come about solely through contact with the library organization. In fact, during the last few years a decided restraining influence has been exerted to keep more from entering the profession. And it is rather significant that the phase of library work that in most instances has had special appeal is the scientific and scholarly opportunities offered in the field of cataloging and classification.

Other more direct methods of bringing the students in contact with the books have also been employed. Direct help to the individual student is undoubtedly still one of the most important functions of the college librarian. The placing of as many books as possible where students may have direct access to them is also useful. With this in view, reserved books, instead of being kept behind the loan desk on call, as is often the case, are here placed in the reading-room, the books for each course in close proximity to the regular reference books on its main subject. This, in addition to giving the students opportunity to go directly to the books wanted, makes it possible to bring together tem-

porarily most of the literature assigned to any particular course, something which seems to be much appreciated by both students and instructors. It also makes for economy in administration, since the extra work involved in applying the device designed to indicate the proper place of the books in the reading-room is considerably less than that involved in handling the books across the desk. The loss of books, usually considered the main objection to placing reserved books on open shelves in the reading-room, has not been sufficient to cause any grave concern.

No browsing-room or other similar device to stimulate voluntary reading beyond the usual display of new books in the reading-room has so far been tried out; but, as a help in this direction, rather liberal access to the stacks has been granted. For a few years all students were permitted such access, but this resulted in so many displacements on the shelves that this privilege has since had to be limited to seniors, juniors, and others only by special permission.

For the freshmen, two lectures by the college librarian as a part of the college orientation course have been followed by a practice period in groups of twenty-five or less. This year an attempt is being made to supplement this procedure by co-operation with the course in freshman English. For the semester's term paper each student is required to compile a systematic bibliography of his topic under the supervision of the librarian. While the project as it is being carried out here undoubtedly has many features in common with similar work in library instruction for freshmen elsewhere, it differs somewhat in the greater stress laid on the instruction given the individual student and also in the fact that it is being done in co-operation with another department. For this reason perhaps, a more detailed account of the procedure may be of interest.

The librarian first gave a talk to the class, outlining the fundamental principles of compiling a bibliography. Each member of the class, who had been given his own individual topic, was then told to apply these principles to his particular subject, with the provision that he was to consult the librarian whenever he might be in doubt as to how to proceed. This has resulted in what virtually amounts to individual tutoring by the librarian of the more than 125 freshmen. The topics assigned, all biographical, have been such that to find the material available the students have had to make use of the various tools of the library, particularly the catalog and periodical indexes and a considerable number of reference books, both general and those con-

nected more closely with the specific topic of the student. In each case the student was required to look up all the material he could find in the library on his topic and—except in a few instances where the material was very extensive and a selection had to be made—to record these references in accurate bibliographic form. The first draft was frequently meager in scope and lacking in accuracy and form. In some cases the papers were returned as many as three or four times; in addition, many came for consultation in regard to specific points. No paper was finally accepted until it showed fairly satisfactory results both as to the material and in accuracy and form in recording the references. The bibliographies as finally accepted were then graded by the librarian. These grades were taken into account by the English instructor in giving the final grade for the course. This work occupied much of the librarian's time for a period of more than a month; but, judging from the response by most of the students and the much greater ease with which they have since found their way about the library, it would seem that it was time well spent. For the second semester, the plan is to leave much more to the initiative of the individual student. Topics of a somewhat more complex type will be assigned and the students given only occasional suggestions as each case may require. Plans for giving credit courses both in bibliography and in individual reading for more advanced students have also been under consideration, and a three-hour course in bibliography is being offered for the first time the coming semester.

A brief summary of the progress made in the work of reorganization during the first ten years, together with a few figures on the cost of the development and administration of the library during this period, may not be out of place. The period is limited to the first ten years mainly because since the summer of 1931 the effects of the depression and other circumstances have reduced the funds available to such an extent that there has been very little left to spend after providing for the most urgent needs and for the bare routine administration of the library. The organization work proper has therefore been practically in a state of suspension since that time.

During this ten-year period the book collection was increased by a little more than 23,000 volumes. While some of this increase was gift material of more or less doubtful value, by far the greater part was books purchased for the systematic development of the library according to the plan previously indicated. In the matter of organization, in addition to handling all new material, more than three-fourths

of the original collection was recataloged and reclassified. The total volumes cataloged, both old and new, during this period amounted to practically 50,000 (48,615, to be exact). In connection with the recataloging process, the more valuable unbound material, of which there was considerable, was prepared for binding; this, together with similar current material, brought the total sent to the bindery during the period to about 5,000 volumes. The newspaper material—amounting to about 700 volumes, most of which had been folded and tied up in bundles—was spread out, collated, part of it bound, and the rest placed in heavy paper folders. Only temporary records for this material have as yet been made. A manuscript collection was likewise established; and of this, which consists of approximately 20,000 separate items—letters, diaries, church records, etc.—about half has been carefully cleaned, arranged, and cataloged and the remainder roughly arranged and placed in such shape that it will not deteriorate.

The reorganization work has been carried on by a very small staff and in connection with the current routine work of the library, the same staff doing both. During the first year only one full-time assistant was employed, and for the rest of the period there were two. In addition, from two to four part-time student assistants were added during the school year. During the summer vacations there were usually two or three who worked for the training and experience afforded them. Because of economic circumstances, it was not possible to obtain trained persons even for the full-time positions, and the librarian had to devote much time to the necessary training and to the careful revision of practically all the more important technical detail.

In regard to cost, the library operated on a carefully planned budget which provided a book and maintenance (except building maintenance) fund of between \$3,000 and \$4,000 and an administration fund, including the librarian's salary, ranging from \$3,500 to \$4,400 per year during this period. The total actual expenditures for the ten-year period were, in round numbers, \$38,000 for books and maintenance and \$42,000 for administration. Of the former, a little more than \$27,000 was expended for book purchases, about \$7,000 for binding (of this about half for arrears), and the rest for supplies, postage, etc.

The results achieved are probably rather difficult to evaluate, at least to their full extent. Reference has already been made to the increased use of the contents of the library as the reorganization work progressed. The circulation statistics bring this out more concretely. The year before the reorganization work began only three books per

student were taken out for use outside the reading-room; in the second year of the reorganization period this average had risen to nine; and from then on there was a gradual increase until in the last two years of the period the average was between nineteen and twenty per student. Of the use of books within the library no statistics were kept, but even from casual observation it was easily ascertainable that the increase here was at least as great as in the number of books taken out. The fact that the number of hours during which the library was kept open was increased from approximately forty hours per week the first year to over seventy for the week days and that the demand made it advisable to keep open also on Sunday afternoons after the second year would also seem to bear this out. The organization of the Norwegian-American material has not only given incentive to the beginning of research on the part of a number of students of this college but has also attracted several graduate students and scholars from the less distant universities and a few from a greater distance who have found it worth while to spend longer or shorter periods in the study of this material.

While the total annual expenditures for the library during the years under consideration were undoubtedly more than double the amount spent during the years immediately preceding, when measured even by the service given alone, the cost certainly has been relatively much lower. In addition, the organization work done—though admittedly not much more than a fair beginning—should be a foundation upon which the further development of the library can be built, so that it eventually may attain the place, both in efficiency and influence, that the library in a first-class liberal arts college should occupy. It is to be hoped that circumstances, both economic and general, may make the resumption of such development possible comparatively soon.

In conclusion, the writer desires to make special acknowledgment to Mr. J. C. M. Hanson, both for the inspiration and training received through the more than a dozen years that it was his privilege to be associated with Mr. Hanson as assistant at the Library of Congress and the University of Chicago Libraries, and also for the many suggestions and good advice in regard to problems that have come up during the process of reorganization.

KARL T. JACOBSEN

LUTHER COLLEGE
DECORAH, IOWA

NEW LIGHT ON OLD LIBRARIES

DR. GEORG LEYH, director of the Library of the University of Tübingen, has spent much time and energy in investigating the history and evolution of our library buildings. The question as to how to take care of the continuous stream of books pouring from the presses of various countries has commanded the attention of librarians and taxed the ingenuity of architects since the time of Gutenberg's invention.

In the eagerly awaited second volume of Dr. Milkau's *Handbuch der Bibliothekswissenschaft* there is published the most recent of Dr. Leyh's studies on the historical development of the library building and its equipment. He points out that the building with suitable furnishing makes possible the arrangement of the collection, permits convenient usage, prevents scattering of the contents, and assures its continuance. Thus the building becomes an integral part of the library and is of sufficient importance to justify a historical review of its development. The surprising variety in the construction of libraries was brought about by four factors which were developed in a continuous process of evolution: (1) the form of the book; (2) the changing way of using it; (3) the continuously increasing mass of books; and (4) the changes in the architecture and artistic adornment of library buildings.

This chapter in Milkau, together with his previously published articles on "The Evolution of the bookstack" (*Das Büchermagazin in seiner Entwicklung*, Berlin: Elsnerdruck, 1929) and "Library building problems," (*Zentralblatt für Bibliothekswesen*, XLV, 471-503) may for our purposes be considered as parts of a larger study by Dr. Leyh, as reports of work in progress, which some day, let us hope, may be amplified into an independent volume. Studied in connection with Dr. Alfred Hessel's very readable *Geschichte der Bibliotheken* and the illustrations in Dr. Walther Schürmeyer's *Bibliotheksräume aus fünf Jahrhunderten*,¹ they provide some of the historical and pictorial background necessary for an understanding of the evolution of our library buildings. Much more will be available in the course of the year when the third volume of Milkau's *Handbuch* appears.

¹ This should not be read by the serious student without consulting Dr. Leyh's review in the *Zentralblatt für Bibliothekswesen*, XLVI, 506-12.

While we are fairly well informed about the management of libraries in ancient times we know but little about the rooms in which the libraries were kept. Historians have tried in vain to discover the library arrangement which might have served as a model to the Ptolemies. The ancient Egyptian temples had libraries in connection with the archives, which served mainly for liturgical and educational purposes.

The excavations at Nineveh, Pergamum, and Timgad, show merely the position and divisions of the space devoted to the library. The excavations at Ephesus enable us roughly to reconstruct the old library. About all that we know concerning the appointments of the ancient library at Alexandria is contained in the remark of Ammianus Macellinus, who says that nothing could compare with its richness of architecture except the Capitol in Rome.

The public libraries of Rome were usually located in the center of the city and frequently had some connection with a temple. The arrangement of the Pergamum library was followed, the space being divided into three parts: (1) a portico, or place for walking; (2) an ornamental room; and (3) rooms for the storage of the rolls. We know nothing definite about the distribution of the space in the Alexandrian library. All the more valuable, therefore, are the results of the German excavations in Pergamum. Beside the temple of Athena Polias, there was found a free space with a portico two stories high, next to which were four rooms. In the largest of these was a colossal statue of Athena, also pedestal inscriptions of prominent writers of Asia Minor, including one in verse about Homer. This may be considered as the typical library plan of antiquity: the stoa used for studying, a hall adorned with statues, and the rest of the rooms used for storing books, all of this in close connection with a sanctuary.

The library in the Athenian Ptolemaion took on more definitely the semblance of a modern university library. Wide circles of cultured people as a whole were added to the learned patrons. The library acquired its essentially public character and now served, in the words of Vitruvius, *ad communem delectationem*.

"Captive Greece took captive her barbaric conqueror" says Horace. The culture of the Roman Empire is regarded as merely a continuation and further development of Hellenistic culture. From the middle of the second century B.C. Roman generals began to bring home Greek libraries with other booty. Bibliophilism developed in aristocratic Roman society. Cicero greatly valued his collection of books and con-

sidered it as the soul of his house. Caesar wanted to use Varro, who wrote a treatise *De bibliothecis*, to connect world-literature with the world-empire. There is evidence to indicate that he had hoped to transplant the Alexandrian library to the banks of the Tiber, but it was only after his death that the first public library was founded in Rome. Augustus established two collections, one on the Palatine Hill, beside the Temple of Apollo, and another in the portico of Octavia. Of the twenty-eight public libraries in the capital at the beginning of the fourth century, only a small number can be identified. They were divided into Latin and Greek sections, and served at the same time as a depository for public documents.

A collection of books became a necessary part of the appointments of a city palace or a distinguished country estate, even though, as Seneca remarks, the owner hardly read the indexes in the course of his whole life. There were private libraries with as many as 30,000 and even with 60,000 book rolls.

The latest excavations in Ephesus have revealed a bookroom without portico, but instead with a façade and an open stairway ornamented with columns. In order to protect the papyrus rolls from the moisture an outer wall was often added with a narrow corridor between it and the inner wall. The libraries resembled other monumental structures of the period. There was almost always the statue of Apollo or of Minerva in the large hall alcove, together with busts and medallion portraits of scholars and literary men. The book rolls lay in the compartments of the wooden closets, which were often arranged symmetrically and set back into niches in the wall. When necessary, there were several such rows, one on top of the other, the upper ones being reached by means of galleries resting on columns.

Medieval libraries, when contrasted with those of ancient as well as of modern times, are characterized by their comparatively small numbers of books and the limited range of subjects covered. The medieval library catalogs list only a few hundred items at most, and it must be remembered that several titles often form one composite codex. All the literature which the Middle Ages possessed—namely, the Christian writings and the salvaged remains of antiquity—together with the learned and inspirational works which were produced between the ninth and the twelfth centuries, could be readily contained in several hundred volumes. The library at Reichenau had in the ninth century 413 volumes, while that at San Gallo had about 300; St. Emmeran in Ratisbon in the eleventh century had 513; and Cluny in the twelfth

century had 570 volumes. The inventory of the library of the Holy See made in 1295 by Pope Boniface VIII showed it to contain only 500 volumes. It took three centuries for the library of the Benedictine monastery at Bobbio to reach a total of 650 manuscripts.

There have been preserved numerous catalogs of medieval monastic libraries. They show uniformly a triple division of their books into biblical writings, writings of the church fathers, and secular literature.

In the cloister plan of St. Gall (820 A.D.) there is shown a two-story building in the northern outer corner, between the choir house and the nave of the church, accommodating the scriptorium below, and in the upper story the library. In the Benedictine monastery of Fontanella (822-833 A.D.) the library seems to have been accommodated in a building standing apart, somewhat as in the building plan of the Abbot Desiderius for Monte Cassino (1058-1087) and in the monastery at Mt. Athos. In the Cistercian monastery at Clairvaux (1115) the library room is located above the parlatorium; adjoining the cloister there is a small space separated from the sacristy designed for books which are to be read in the cloister itself. Similar arrangements were found in Maulbronn, Zwettl, and Wettingen. The part of the passage adjoining the church served as a reading room. A small working collection of useful texts for ready consultation was kept in the passage itself, either in a niche in the wall or in a small room extending therefrom. In general, the collections of manuscripts belonging to the monasteries were placed where they would be used and were not centralized.

In the smaller monasteries the manuscripts were usually kept in an *armarium* built into the wall; but even in the monasteries which owned larger collections the room in which the cupboards were placed probably did not show any special architectural features. Later, when more room was needed for the growing collection of manuscripts cupboards were placed along the cross-corridor and the monks used the window seats to do their reading. Gradually the part of the corridor adjoining the church was transformed into a room for both reading and book storage.

In the English monasteries the offices of librarian, or *armarius*, or *cantor*, or *precentor*, were combined in one person who was singer, chief librarian, and archivist. He had charge of all the books contained in the *aumbry*, or book cupboard, or later in the bookroom, or library. Cardinal Gasquet says:

Moreover, he had to prepare the ink for the various writers of manuscripts and charters and to procure the necessary parchment for book-making. He had to watch that the books did not suffer from ill use, or misuse, and to see to the mending and binding of them all. As keeper of the bookshelves, the cantor was supposed to know the position and titles of the volumes, and by constant attention to protect them from dust, and injury, from insects, damp, or decay. When they required repair or cleaning, he was to see to it; and also to judge when the binding had to be repaired or renewed. For the purpose of thus renovating the manuscripts under his care, he had, of course, frequently to employ skilled labour. At such times he received an allowance of food for the workmen engaged "on cleaning the bindings of the choir books," etc. Special revenues also were at his disposal "for making new books and keeping up the organs."

The need for public libraries was felt in Italy much earlier than in the north, because of the influence of the Italian mendicant orders and the rise of humanistic studies in Italy. There was consequently developed in Italy what is known as the desk library. Book desks were made both one-sided and two-sided, both high-standing desks and lower ones with a bench before them upon which to sit. The books were laid open and flat upon the desks. The title of the book was written on a strip of parchment or upon a transparent piece of horn, fastened under the front or back cover. The books were sometimes attached to chains, which slid along a horizontal iron pole. When more space was needed there was added a broad shelf over or under the reading desk. When still more space was needed the books were shelved upright, and the number of horizontal shelves increased.

The Renaissance libraries are similar to those of the late Middle Ages, but are more artistic. The more beautiful examples are found today in their original state in Italy. The library hall of the Dominican monastery of San Marco in Florence, erected in 1441 by the order of Cosimo de Medici, was the model of a whole line of Italian libraries, especially for the still completely preserved library of Malatesta Novello in Cesena. Here are found 29 benches on either side of a center aisle. The sloping back of each bench is connected directly with the reading shelf behind it. Under the sloping reading shelf there is a cross-compartment for the placing of manuscripts which are attached to chains. The rods for the rings of the chains run under the reading shelves.

The Laurentian Library in Florence was begun in 1525 but was not opened until 1571, more than a century after the invention of printing. The use of the desk system as installed here is clearly an anachronism.

PLATE I



Ed. - Alinari. P. L. N. 1916. FIRENZE - R. Biblioteca Mediceo-Laurenziana-Deliana. Uno dei Plutei dove si conservano i Libri.

BOOK DESK IN THE LAURENTIAN LIBRARY, FLORENCE



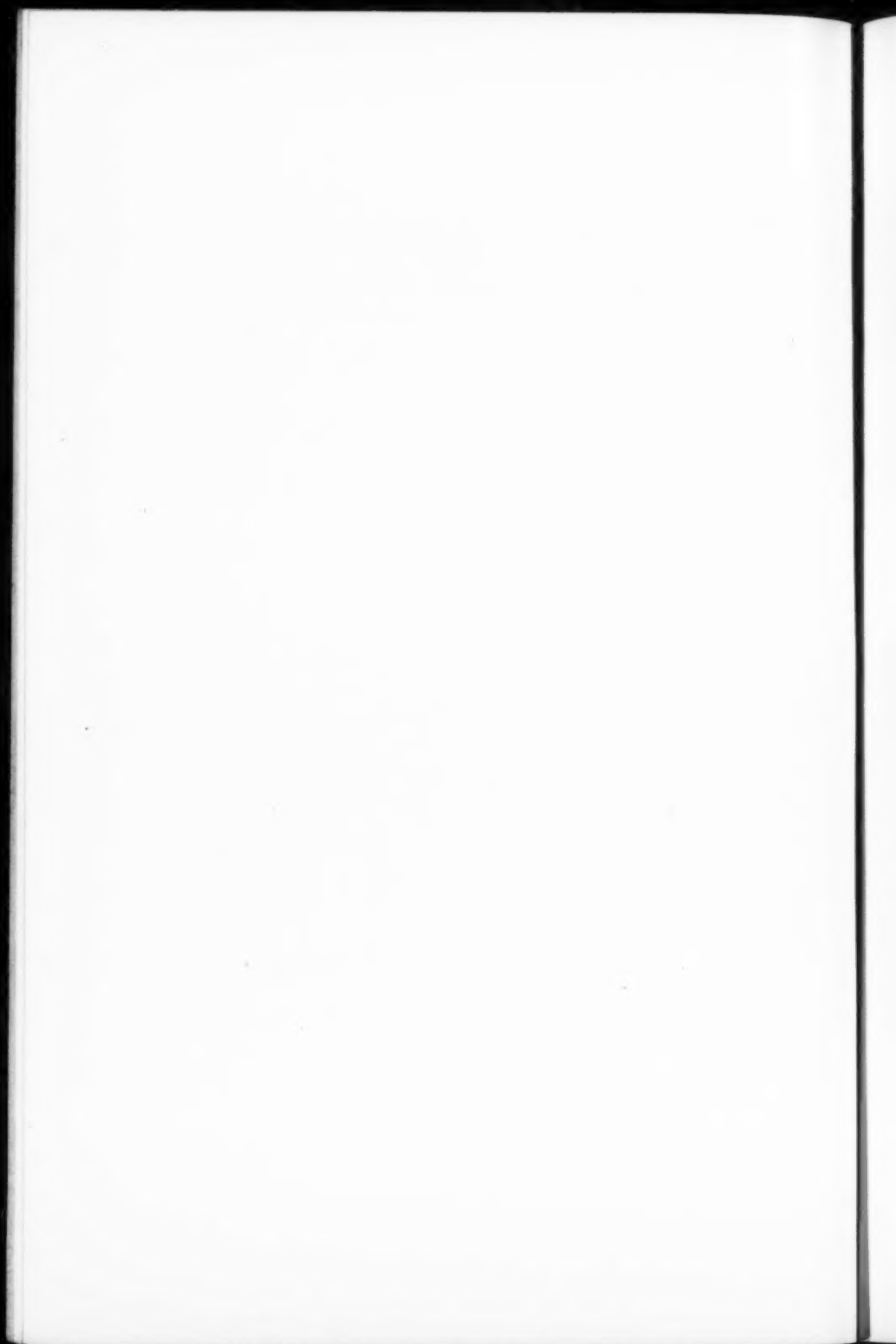


PLATE II

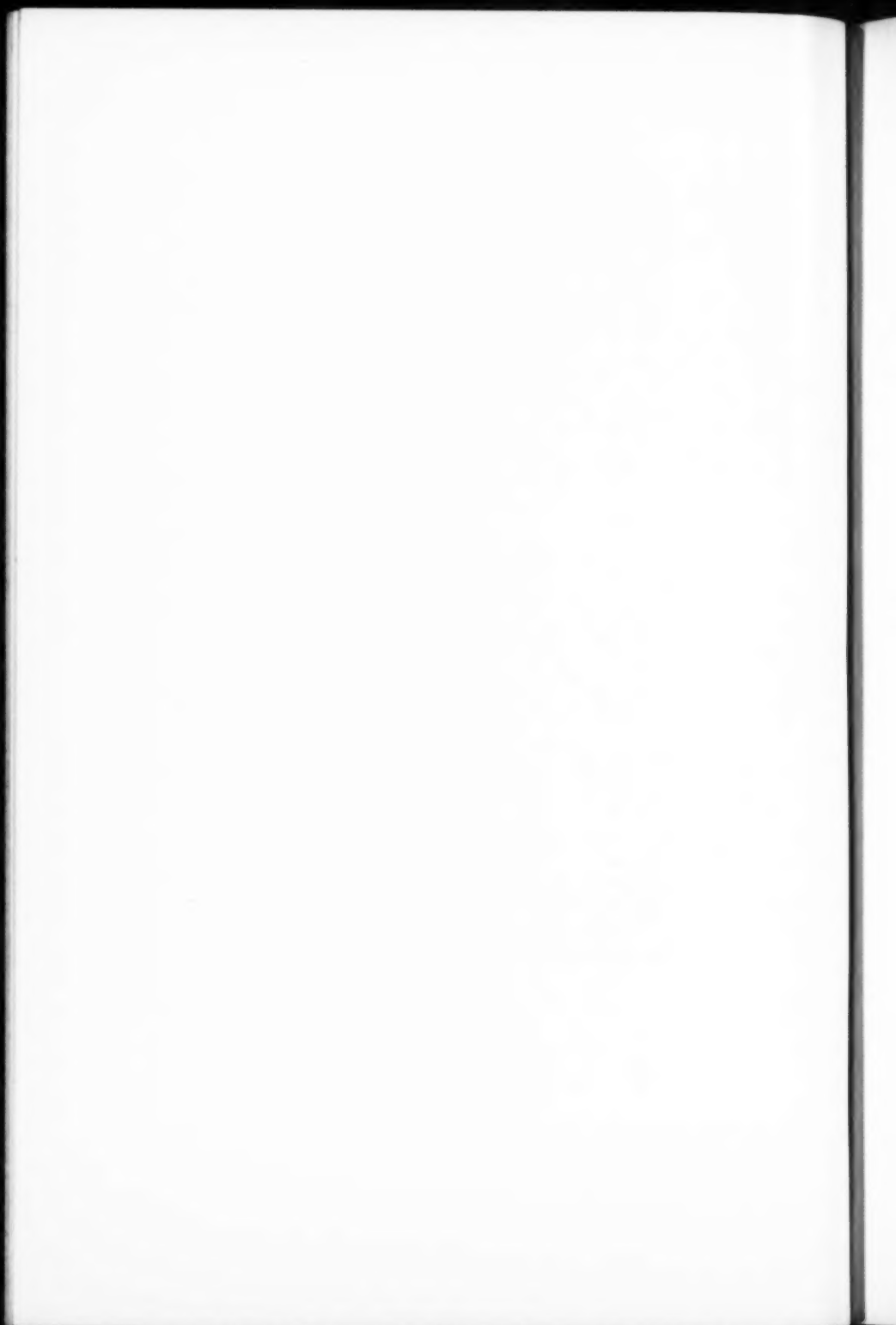


THE LAURENTIAN LIBRARY, AFTER A DRAWING BY ZOCCHI, ENGRAVED BY BARTOLOZZI

PLATE III



THE LIBRARY OF THE UNIVERSITY OF LEYDEN, AFTER A DRAWING
BY JAN CORNELIUS Woudanus



Dr. Leyh considers the library hall of the Biblioteca Ambrosiana in Milan as the most distinguished room ever erected in Italy for the housing of printed books. The book-lined walls are divided horizontally by a narrow wooden gallery, reached by stairs concealed in the four corners. The books are uniformly bound in parchment and carefully grouped according to height. Everything has been subordinated to the general artistic effect of the room as a whole.

The princely libraries of Germany were modeled upon those found in Italy and after the beginning of the eighteenth century in France also. There was a zeal for collecting *objets d'art* as well as books. The circle of interest gradually widened and there arose a desire to make the collections useful to the public. Therein lies the beginning of the national libraries. The most beautiful princely private library of the eighteenth century is still preserved undisturbed in Sans Souci at Potsdam.

The desire to build libraries *de novo* lagged behind the desire to collect, and any old palace, after some few structural changes, was thought adaptable and suitable to receive the collections destined to form the basis of a national library. Thus was the Hotel de Nevers (1721) in Paris remodeled to house the beginnings of the Bibliothèque Nationale, and Montague House (1753) on the northern boundary of London, remodeled for the use of the British Museum. There were no specific demands as to the kind of accommodations needed: a large room or, as a substitute, a row of smaller connected rooms were apparently considered equally suitable for a library.

In Germany the Thirty Years' War and its aftermath had, for almost a century, stifled all creative impulses. With the beginning of the eighteenth century there is noticeable a surprising wealth of artistic production, ushering in one of the richest and most active periods of German architecture. On all sides there arose monastic settlements which are noteworthy for the boldness of their conception. The church and the library, especially, stirred the imagination of the German architects. Here the architect and the patron joined in a common desire for self-expression. The resultant baroque libraries were built not merely as libraries but as settings for noble and costly contents. While the idea of making use of the room as a whole for book walls had originated in Italy, in eighteenth-century Germany fantastic rooms were built around the book. The many colors of the bindings, the shining labels, and the rich gilding were regarded as so much ornamentation to be made use of by the architects. To these architects working in the baroque the book was something with which to cover the

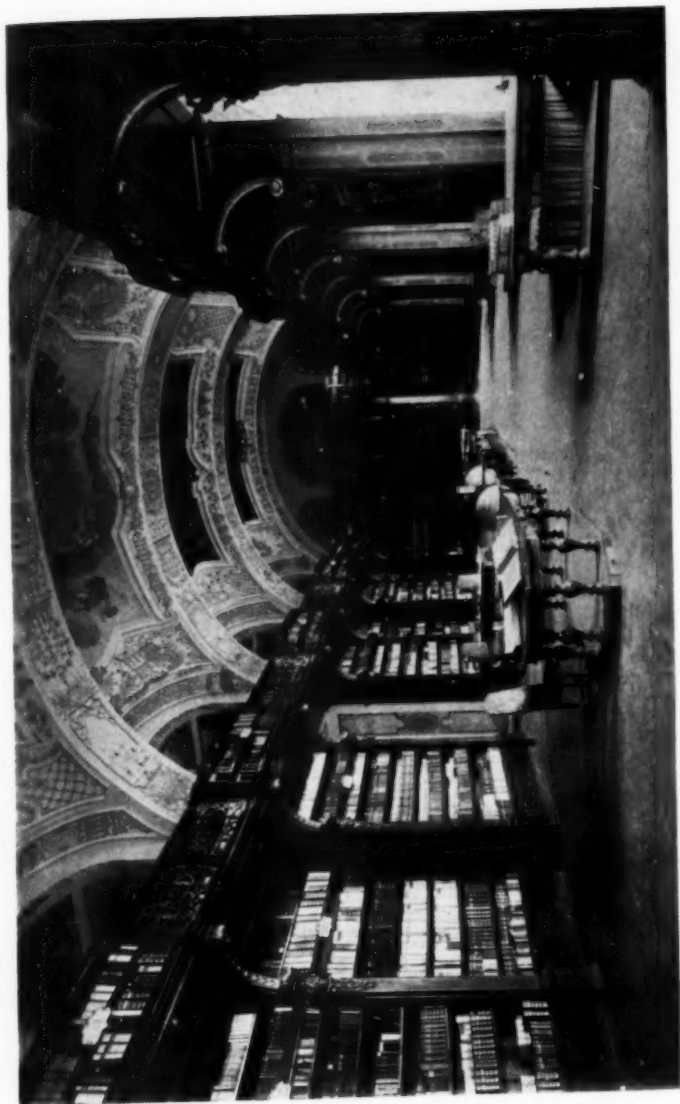
walls. The architects were intoxicated with a passion for color, and they seized upon books as rich material of great ornamental charm with which they could produce an intellectual atmosphere.

Ideas as to what constituted a good-sized working library have greatly enlarged with the broadening of the field of research. In the middle of the seventeenth century Gabriel Naudé considered a library of 50,000 volumes as huge. As late as the year 1800 there were only five libraries in France numbering more than 100,000 volumes each. Libraries grew very slowly in the good old days. The University of Würzburg Library, founded in 1619, had only a total of 11,000 volumes in 1760—which meant an average yearly growth for its first 141 years of only 78 volumes per year; and from 1760 to 1782 the annual accessions averaged only about 60 volumes. In other words, it took that library a century and a half to collect as many books as are acquired by many present-day libraries in a single year. Even as late as the middle of the nineteenth century it was hardly considered necessary to make an exact count of the annual increment to the Prussian State Library, which ordinarily amounted to ten or twelve thousand volumes. Yet contrast the whole number of books, 650,000 volumes, gathered between 1786 and 1890, with the increase of nearly one and a half million volumes between 1890 and 1926. And since 1927 as many as 90,000 volumes have been added in a single year! If this growth is continued for another generation where will room be found for the housing of the books?

In the old libraries, as Dr. Leyh says, it was possible to put the books on parade in a big hall and to treat the rich backs of the bindings as a part of the decoration of the room. But the development of the highly ornamented bookroom into the practical library building of today is due to nothing other than a growing desire to make as complete use as possible of the floor space and the cubic content of a room in which at first only the edges and the wall space were utilized. In order to increase the storage capacity there were added double-faced bookcases, either running parallel with or at right angles to the long walls of the room.

The bookroom of the Munich Library of 1832 carried out, at least theoretically, the suggestions of the architect Wiebeking, who in 1821 had recommended high-ceilinged rooms with galleries and without ladders. In reality there was here but little that could not be found in the Bodleian at Oxford, dating from 1610. However, the rooms of the building were definitely set off for the three fundamental functions

PLATE IV



LIBRARY OF THE CISTERCIAN MONASTERY AT ZWETTL, AUSTRIA, DONE IN THE BAROQUE STYLE

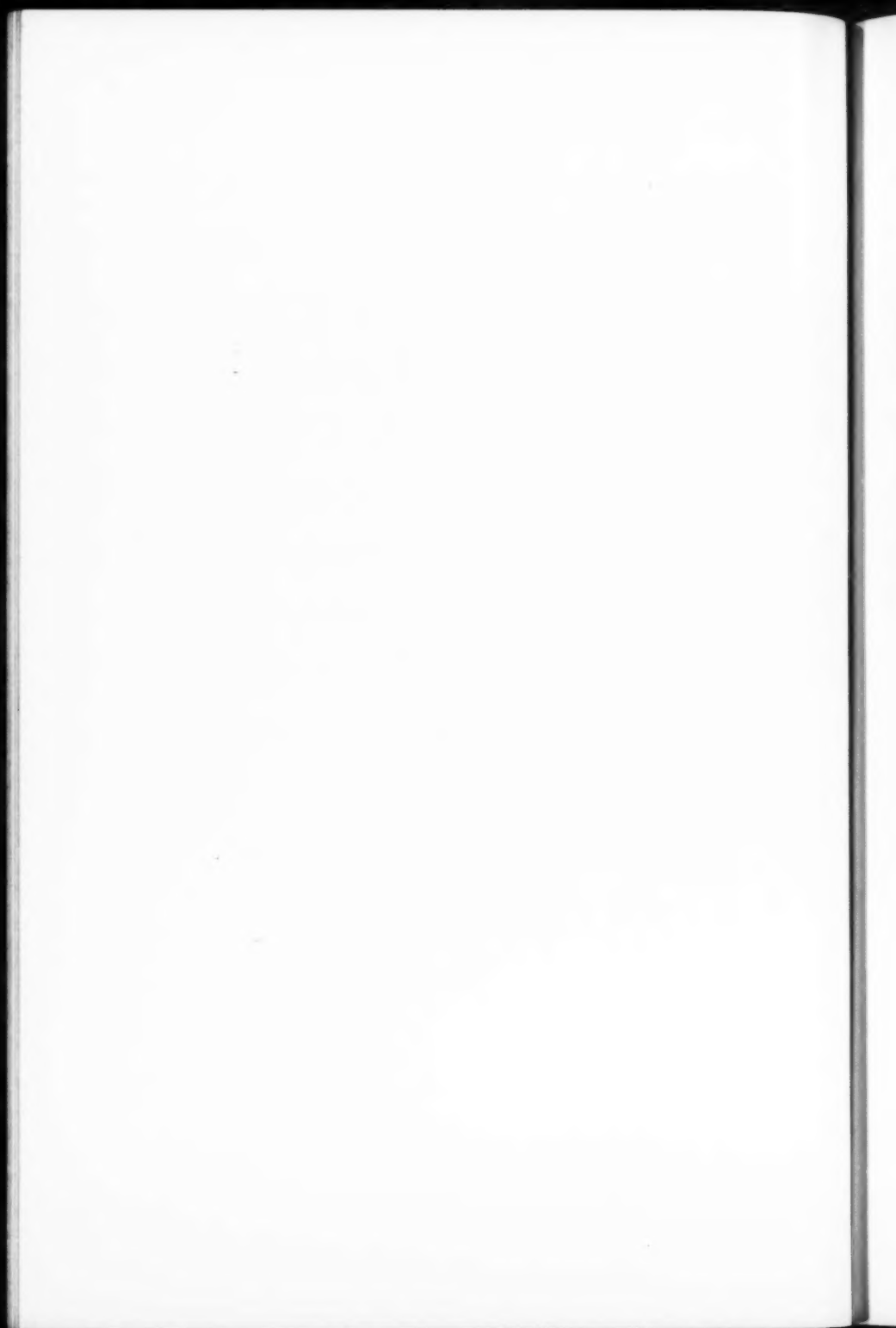
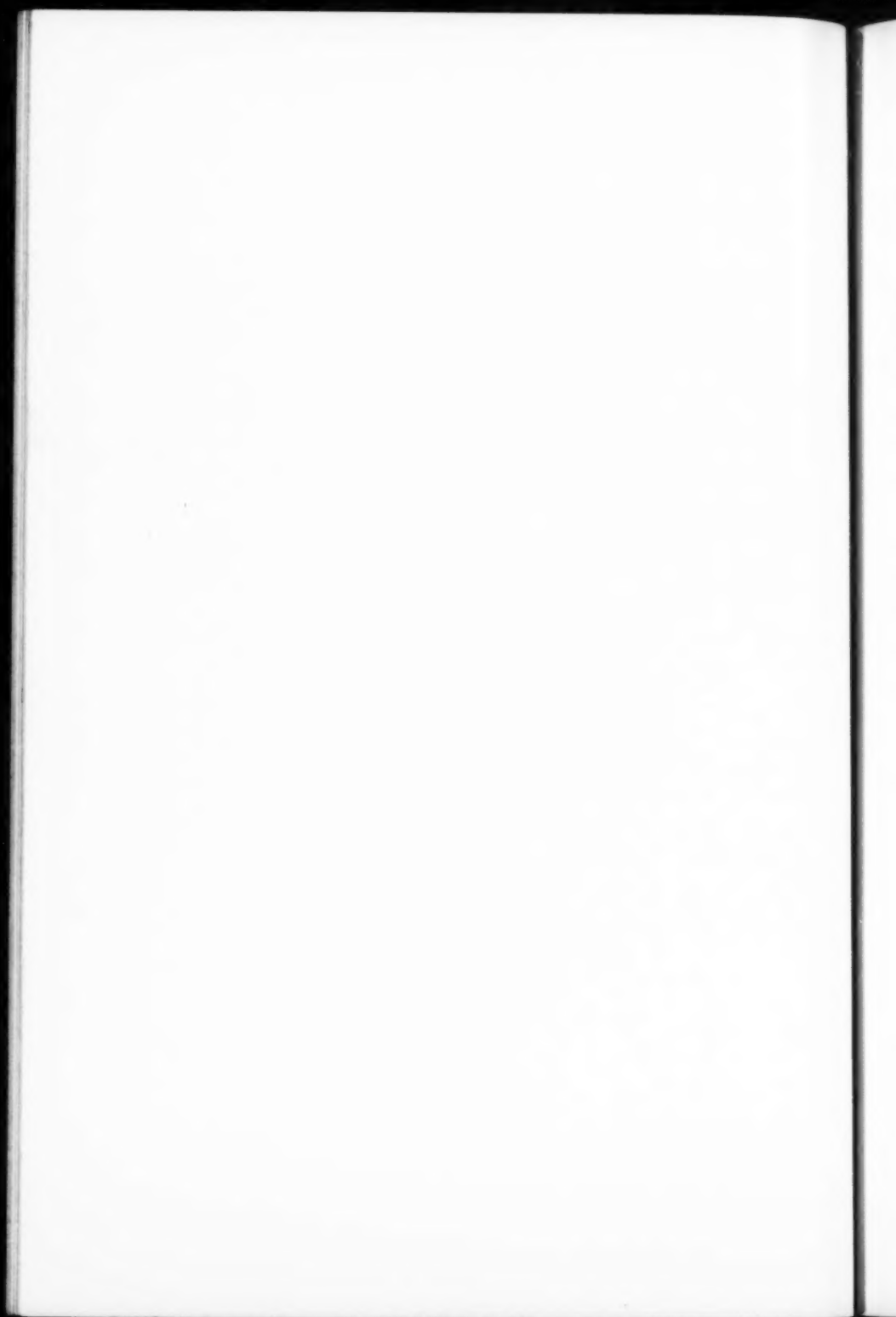


PLATE V



LIBRARY OF THE BENEDICTINE MONASTERY AT MELK, AUSTRIA,
DONE IN THE BAROQUE STYLE



of a library: (1) the storage of books; (2) reading rooms; (3) administrative offices and work rooms.

With the continued growth of libraries and the increased demand for more bookshelves it was inevitable that bookcases would be placed at right angles to the walls. The ground floor of the Bibliothèque Ste Geneviève in Paris is a forerunner of the bookstack; but the modern metal stack is traced to the alterations and additions to the British Museum in 1854-56. The stacking of the books was much more effective than had ever been accomplished before, because the distance between the centers of the ranges was reduced from 4.50 meters to six feet (2.44 meters), which more than doubled the storage capacity. Moreover, the shelves were made more easily adjustable by the use of shelf-pins. The stack tiers were made of iron and were only six feet high. The importance of these innovations was not at first recognized in certain quarters. Thus, Edward Edwards, the historian of English libraries, writing in 1859, did not think that the innovations in the British Museum in any way solved the problems of library planning. He considered as the goal high-ceilinged rooms in which it would be possible to see most of the books at a glance and where galleries that give access to the books are reached by circular staircases in the corners (as in the old Astor Library in New York City).

But in the same year, 1859, additions were begun to the Bibliothèque Nationale in Paris, which did much more to develop the idea of a bookstack than the innovations in the library of the British Museum had done. Upon entering the bookroom of the Bibliothèque Nationale, one is immediately impressed by the fact that here is the result of a definite plan, carefully considered and carried out in every detail. Had there been sidelights it would have been a real bookstack; but since the light came entirely from above it was necessary to waste a lot of space in making the central aisle six meters wide and to use grated iron floors in the stack. These two features were religiously copied for decades, even when there was no similar need for them.

In Germany, Petzholdt, the editor of the *Anzeiger für Literatur und Bibliothekswissenschaft*, kept insisting from 1856 on that the most suitable place for bookcases was along the walls of a room and that they should not be placed crosswise except when it is necessary to save space. Even as late as 1877 he recommended the bookrooms of the Munich Library as a model to be copied, oblivious of the fact that that room was antiquated at the very time it was built.

Staelin, the Stuttgart librarian, found it depressing and unattrac-

tive to have the ceiling only two feet above the head and even though on a visit to London and Paris he delighted in the compactness of the bookstacks, nevertheless, he thought that the stack tiers should be eleven or twelve feet high. Dziatsko, on the other hand, considered it unsuitable to have the rows of bookcases close together since he thought it necessary in German libraries to leave space between the bookcases for work tables. Had he only been able to foresee the stack carrels which are now a characteristic feature of the newer American installations!

Dr. Leyh finds a surprising lack of collaboration in the attempts to solve library building problems that arose simultaneously in Greifswald, Halle, and Göttingen. In the matter of lighting the bookstack, Paris should not have served as a model for either Greifswald or Halle, where the light from above, the pierced floors, and the slits in front of the bookcases were quite unnecessary in view of the strong light from the sides. Judging from the great care with which in other respects the building at Halle had been planned, these doubtful ways of providing illumination had come to be looked upon as essential for a bookstack. People were apprehensive about the lower stories of the stack, and as a result this groundless anxiety about lighting crops up in Cologne, Graz, Amsterdam, Leyden, Stockholm, Athens, and elsewhere.

Dr. Leyh traces the history of the decreasing distance between the centers of the ranges (from three meters in Paris to a little over four feet in typical American installations) and adds that it would be a mistake to suppose that every important decrease of this distance has necessarily resulted in the loss of light and of space in the aisles. Shelves were formerly much deeper than was actually necessary. Space was gained by making the shelves shallower, and light was secured by placing the windows more advantageously. Even though the aisles have become narrower, the recently constructed stacks, despite their greater compactness and greatly increased content, are much easier to use and better lighted than the prototype of sixty years ago.

Dr. Leyh rightly argues that use should be made of every source of daylight offered by a modern building of concrete, iron, and glass. He feels that American library architecture, because of subservience to tradition, has a mistaken zeal for monumental buildings, has not yet solved this problem, and that here is an opportunity for further experimentation.

THEODORE W. KOCH

ERNESTO AND EUGENIO DO CANTO

A CONTRIBUTION TO AZOREAN BIO-BIBLIOGRAPHY

THE *Aurora do Cávado*, a literary bi-weekly published at Lisbon, contained a series of articles entitled "Galeria de benemeritos" written by Rodrigo Velloso, at the time editor of the paper. Two articles (3ª série nos 10-11, 20 de julho and 8 de agosto, 1910) are devoted to the sons of José Caetano Dias do Canto e Medeiros and D. Margarida Isabel Botelho, a family of rank in the island of São Miguel.¹ Of the sixteen children with which this marriage was blessed, six were sons, two of whom died in early youth. André, the oldest, very active in politics, died before he reached his thirty-third year. His brother José (1820-98) was one of the most prominent citizens of São Miguel. In compliance with a wish of his parents he had given up the study of mathematics and philosophy which he had pursued at the University of Coimbra. He devoted himself to the advancement of the agricultural and commercial produce of the island. He introduced the cultivation of pineapple, thus providing his fellow-citizens with a prolific source of revenue; and it was due to his energy that a much needed dam in the harbor of Ponta Delgada was constructed. In common with his older brother and other persons interested, he founded the Sociedade de Agricultura Michaelense. He was one of the main contributors to the periodical *O Agricultor Michaelense* and a corresponding member of the Academia Real das Sciencias. Nor was he less interested in literature. When Antonio Feliciano de Castilho founded the Sociedade dos Amigos das Letras, he was one of his most ardent supporters. His essays on Camões and Sá de Miranda were favorably reviewed by Theophilo Braga and Carolina Michaelis. His collection of *Camoneana* ranked next to that of Carvalho Monteiro and in 1895—three years before he died—he published at Lisbon his *Collecção Camoneana de José do Canto, tentativa de um catalogo methodico e remissivo*, a volume of 357 pages in 8°. He bequeathed his library to the Bibliotheca Publica de Ponta Delgada.

¹ For further information I am under obligation to D. Beatriz do Canto Faria e Maia Athay de la Camara, granddaughter of Ernesto do Canto, who very kindly sent me various biographical data of her family and No. 76 of the *Archivo dos Açores*, and to Mr. C. Martel, of the Library of Congress.

His brother Ernesto, born December 12, 1831, in Los Prestes (Ponta Delgada) was of a different disposition. He took little interest in public affairs. He did indeed serve as a member and later as president of the Junta Geral of his district, but with his aversion for politics and dread of publicity, his zeal for learning and scholarly investigation, it meant a great deal of sacrifice for him. In his autobiographical sketch written in 1897, he mentions the various courses of study which he had pursued in his youth, among them a course in agriculture taught by Mr. Murray, an Englishman. At the University of Coimbra he studied mathematics and philosophy and in 1855 he obtained the degree of "Bacharel em filosofia." He travelled extensively from 1862 to 1867 in France, Germany, the Netherlands, England, Spain, and Portugal.

After his return he devoted nearly his entire life to the study of history, especially that of his native land. His letters to Dr. João Teixeira Soares de Sousa, written in the years 1875-77 and published in 1920, in Volume XIII, 4, of the entire series of the *Arquivo dos Açores* (No. 76) give a good insight into the various problems with which he was occupied in those years. In one of the letters (21 de Dezembro de 1876) he refers to a work on Azorean bibliography which he intends to publish in two parts, the first to contain the works on the Azores and its inhabitants, the second the names of the "escriptores e autores açorianos." In the next letter (4 de Fevereiro de 1877) he mentions that he has nearly a thousand authors to deal with and that in preference to the chronological arrangement he intends to follow the alphabetical plan adopted by Brunet in his *Manuel du libraire*. Thirteen years later (1890) appeared at Ponta Delgada the *Bibliotheca açoriana. Noticia bibliographica das obras impressas e manuscriptas nacionaes e estrangeiras, concernentes ás ilhas dos Açores*, by Ernesto do Canto, a volume of 555 pages in 8°, issued in an edition of 250 copies. Volume II (pp. 346), with the title slightly varied, appeared in 1900. Another bibliographical work of his relates to the conflict between the liberal party of Portugal and the government under Miguel I (1828-34). The first edition was published with title *Ensaio bibliographico. Catalogo das obras nacionaes e estrangeiras relativas aos successos politicos de Portugal nos annos de 1828 a 1834* (Ponta Delgada, 1888, pp. 195). A second corrected and enlarged edition (pp. 314) appeared four years later (1892). The first edition is limited to 130, the second to 152, copies.

Ernesto do Canto was the founder and chief promoter of the *Arquivo dos Açores*, a repository for studies on the history, geog-

raphy, climatology, and literature of that archipelago. It is in the *Arquivo* that most of his treatises appeared, apart from contributions to the Academia Real das Sciencias, of which he was a corresponding member. Some of his treatises appeared in separate issues. Of special interest to the student of American history are *Os Corte-Reaes; memoria historica* (Ponta Delgada, 1883, reprinted from Volume IV), *Quem deu o nome ao Labrador?* (Breve estudo) (reprinted from Volume XII), 1894, 3d edition in 500 numbered copies, 1907, and *Centenaris da descoberta da America por Christovam Colombo, 1492-1892* (reprinted from Volume XI, 1892). In 1878 appeared the first volume of the *Arquivo*; in 1894, the twelfth and last issued under his direction. His health began to fail. An operation in Paris to which he submitted in 1896 did not enable him to resume his work in the former way. His death on August 21, 1900, was deeply deplored far beyond the pale of his native city. In one of the many eulogies devoted to him it is said of him: "É orgulho da nossa terra, um nome fulgente, um espirito lucido, um coração d'ouro."

After his death efforts were made to revive the *Arquivo*. At a reunion of the Sociedade de Geografia de Lisboa in Ponta Delgada, 1903, it was resolved to resume the publication of the *Arquivo* in honor of the memory of its founder. The first number of Volume XIII (No. 73) was dedicated as a special memorial number to Ernesto do Canto, whose autobiographical sketch it includes. Edited by Francisco Afonso Chaves (1857-1926), the *Arquivo* continued to appear at irregular intervals; the last number recorded in the Library of Congress is No. 80 (Vol. XIV, No. 4 [1927]).

Eugenio do Canto—the youngest of the brothers then living—was born in Ponta Delgada October 15, 1836. Upon completion of the usual preparatory course at the Escola Academica he applied himself to the study of science and philosophy at the University of Coimbra and obtained the degree of Bachelor in 1859. In the same year he was provisionally appointed professor of mathematics, physics, and chemistry at the lyceum of his native city; and in 1862, upon a competitive examination successfully passed, that appointment was made permanent. It was due to his initiative that a meteorological station was established at Ponta Delgada, which he for many years maintained at his own expense. Meteorological observation being at that time still very much in its experimental stage, he met with much adverse and unfriendly criticism; and in his resentment at this attitude of his fellow-citizens, he resigned his position at the lyceum after thirty-five years of service. His marriage in 1869 to D. Maria Brun do Canto, a

daughter of his brother José, was destined to bring great sorrow upon him when death deprived him of his wife as well as of all his children.

To divert his mind he began to search for documents and records relating to the great events during the golden age of Portugal's history and preserved in foreign archives or existing in the form of rare printed books and pamphlets or previously published in periodicals or collections difficult of access. His aim was to provide the principal libraries of Portugal with material of this nature by publishing in print or in facsimile the transcripts and photographs of sources which he had selected for this purpose. He thus attempted on a small scale and at his own expense what the Library of Congress is doing in an ever so much vaster way in carrying out the so-called "Project A" (cf. *Report of the Librarian of Congress for 1928*, pp. 228-37.)

The editions are nearly all limited to 60 copies for private distribution only; a few appear to have been published in as many as 120 copies. A copy of each publication, accompanied by the transcript, or the photograph, of the original, is deposited in the *Arquivo Nacional da Torre do Tombo*. Among the foreign recipients of copies was the Smithsonian Institution in Washington, D.C., which deposits publications of this nature in the Library of Congress. Thus far only a small part of these publications has been cataloged in printed form by that library. Rodrigo Velloso says in his article that by that time (1910) thirty-five or thirty-six editions of sources had been issued. In a letter written to me under date of February 7, 1911, Eugenio do Canto inclosed a list of thirty-one publications with titles more or less abbreviated. How many editions appeared between 1911 and his death which occurred on September 9, 1915, I have not been able to find out. Like his older brothers, he was an indefatigable worker and no doubt continued in his efforts as long as he was able. Presumably copies of the later publications were also donated to the Smithsonian Institution, and it is to be hoped that in course of time all the publications of Eugenio do Canto will be represented by printed cards of the Library of Congress. Apart from the formal aspect as part of a bibliography of private prints, such information would be useful to students of a most interesting phase of the world's history when the Portuguese nation, up to that time of little significance, made so many amazing discoveries and founded an empire that still comprises a considerable part of the earth. As a world-power Portugal reached its zenith under the reign of Manuel the Great (1495-1521), and the majority of documents published by Eugenio do Canto belong to that

period. It may be useful to give here a list of these publications, although necessarily an incomplete one. To titles for which cards printed by the Library of Congress exist, the serial number of the card is added. Titles with asterisks denote that Eugenio do Canto favored me with a copy of that publication.

- (1) [Cartas de el-rei D. Manoel. Lisboa, Reprodução na Imprensa Nacional, 1906] CA 8-1912 unrev'd.

(a) Carta de el-rei D. Manoel para os reis de Castella dandolhes parte da descoberta da India, da sua riqueza, e do proveito que d'ahi pôde vir á christandade [XII] dias de julho. 1499.]

(b) Carta de el-rei D. Manoel ao cardeal protector 28 de agosto de 1499.

(Facsimile, and transcript, of MSS in the Archivo Nacional da Torre do Tombo.)

- (2) *Copia et sumario di una letera di Sier Domenego Pixani, el cavalier, orator nostro in Spagna a la Signoria, 27 de julho de 1501. Coimbra, Imprensa da Universidade, 1907.

(Reprinted from "Diarii di Marino Sanuto. T. IV. publicato per cura di Nicolò Barozzi, Venezia. 1880, Columna 99 a 102, Nos. 46* a 48.")

- (3) Trelado da carta que el-rei nosso senhor escrevêo a el-rei e a rainha de Castella, seus padres, da nova da India, 28 d'agosto de 1501.

- (4) Obedientia potentissimi Emanuelis Lusitaniae regis per clarissimum jurisconsultum Dieghum Pacettum oratorem ad Julium II Ponti. Max. Anno Dñi M. D. V. Pridie No. Junii.

- (5) *Preito de obediencia d'el-rei D. Manoel ao papa Julio II prestado pelo seu embaixador Diogo Pacheco em 4 de junho de 1505. Traduzido por José Pedro da Costa, professor aposentado do Lyceu Nacional de Ponta Delgada, ilha de S. Miguel. Coimbra, Imprensa da Universidade, 1907.

(Translation of No. 4 into Portuguese.)

- (6) Epistola de el-rei D. Manoel ao papa Julio II de 12 de junho de 1505 [Ponta Delgada, ilha de S. Miguel, Imprensa do Diario dos Açores, 1906] L.C. 7-21133.

- (7) Epistola de el-rei D. Manoel ao papa Julio II traduzida do texto latino por Damião de Goes. [Ponta Delgada, Typographia do Diario dos Açores, 1906] L.C. 7-16143.

(Portuguese translation of No. 6.)

- (8) Carta de D. Manoel para os juizes, vereadores . . . da cidade do Porto, ordenando para se fazer uma procissão solemne em acção de graças pelas victorias havidas sobre o rei de Calecut. 8 de julho de 1506. (Includes No. 9.)
- (9) Carta de el-rei D. Manoel aos juizes . . . vereadores de Elvas para solemnizarem as victorias havidas na India. 26 de maio de 1506 (with No. 8).
- (10) Copia de vna littera del Re de Portagallo madata al Re de Castella del viaggio y successo de India [*Colophon*: Impresso in Roma per maestro Joanni de Besicken, nel anno MCCCCCV a di XXIII de octobre, Lisboa, Reprodução na Imprensa Nacional. 1906] L.C. 7-21130.
- (11) Gesta proxime per Portugalenses in India, Ethiopia, et aliis orientalibus terris. 7 de novembro de 1506.
- (12) Epistola serenissimi Regis Portugalie ad Julium Secūdum de victoria cōtra infideles habita. 25 de setembro de 1507.
- (13) Epistole serenissimi Regis Portugalie de victoria cōtra infideles habita. Ad Julium papam secūdum y ad sacrum Collegium reuendissimorum, dñorum, cardinalium. [n. p., 1507?]. Lisboa, Imprensa Nacional, 1905] L.C. 7-21132.

(Two letters on the expedition of Lorenzo d'Almeida to Ceylon and his victory over the fleet of the Zamorin of Calicut dated: "Ex oppido Abrantes. Die XXV. septembris M. D. VII.")
- (14) *Emanuelis Portugalie regis ad Julium Secundum epistola de provinciis et civitatibus orientalibus christianae fidei per eum subactis, 1508. Lisboa, Imprensa Nacional, 1908.

At end: Ex Alchochete duodecima Junij M. D. VII^o. Transcriptum ex codice Bibliothecae Chisianae "Sigismundi Titii, Historiarum Senensium. Tom. VII" et collatum concordat. Romae, hac die 23 Junii MDCCCC VIIj. Aemilius Ranuzzi. (Conquest of the island "Zachotora" [Sokotra] and account regarding a judaizing Christian sect in that island with brief mention of the subjugation of Ormus and Sophy.)
- (15) Carta de el-rei D. Manoel para o juiz, vereadores . . . de Evora dando parte da vinda da armada que foi á India. 19 de junho de 1508.
- (16) Carta de el-rei D. Manoel para o juiz, vereadores, procurador, fidalgos, cavalleiros, escudeiros, homens bons e povo, dando parte da vinda da armada que foi á India. [Lisboa, Imprensa Nacional, 1907] L.C. 7-40051.

(Account of Tristão da Cunha's expedition to the East Indies, 1506-1508)

- (17) *Carta de el-rei D. Manoel para o juiz, vereadores e procurador da villa d'Elvas, dando parte da tomada do reino de Ormuz. Coimbra, Imprensa da Universidade, 1908.

(Letter dated at end: "a XXX djas de Janr. de 1509," transcribed from the Archivo da Camara Municipal d'Elvas, livro 2º das Proprias, folhas 38 a 41 by Sr. Antonio Thomaz Pires, da cidade de Elvas.)

- (18) Epistola potentissimi ac inuictissimi Emanuelis regis Portugalliae & Algarbiorum, etc. De victoriis habitis in India & Malacha. Ad s. in Christo patrem & dñm nostrum dñm Leonem X pont. maximum. 6 de junho de 1513.

- (19) Cartas de el-rei D. Manoel a diversos.

- (20) *Epistola de el-rei D. Manoel ao doge de Veneza, Agostinho Barbado 22 de fevereiro de 1501. Coimbra, Imprensa da Universidade, 1907.

(Promises aid in war against the Turks. Reprinted from Diarii di Marino Sanuto t. III, column 1592, and accompanied by the Portuguese translation of José Pedro da Costa.)

- (21) Petri Paschalici Veneti oratoris ad Hemanvelem Lusitaniae regem oratio. 22 de Setembro de 1501.

- (22) Copia literal de las dos cartas del rey Don Manuel de Portugal, existentes en la Real Biblioteca del Escorial en el manuscrito II-8-7, fols. 172 al 177. [Lisboa, Imprensa Nacional, 1907.] L.C. 7-39060.

(Letters to the Archbishop of Toledo, dated Abrantes, March 2, 1506, proposing an alliance between Portugal and Spain for war on the Mohammedans in Africa.)

- (23) Epistola potentissimi ac inuictissimi Emanuelis regis Portugallie et Algarbiorum. De victoriis nup. in Affrica habitis. Ad s. in xpo patrem et dñm nostrum dñm Leonē X, pont. max. 30 de setembro de 1513.

- (24) Epistola do poderosissimo e invictissimo D. Manoel, rei de Portugal e dos Algarves etc. ao S. Padre em Christo e Senhor nosso Leão X pontifice maximo, sobre as victorias dos Portuguezes em Africa. Traducção do texto latino, em dezembro de 1905, por José Pedro da Costa . . . [Ponta Delgada, Ilha de S. Miguel, Imprensa do Diario dos Açores, 1906.]

At end: Escripta na nossa cidade de Lisboa aos 30 de setembro de M. D. XIII. L.C. 7-16142.

(Portuguese translation of No. 23.)

- (25) Epistola Helenea ἡ aviae Davidis Preciosi Joannis, Aethiopum imperatoris, ad Emmanuelem Lusitanorum ἔχῃ regem, scripta anno millesimo quingentesimo nono (1519 ἡ) ἡ Ponta Delgada, Typographia do Diario dos Açores, 19071 L.C. 7-40052.

(The text, reprinted from "Damiani a Goes . . . Opuscula. Coimbra. 1791," is followed by the Portuguese and Italian versions, reprinted respectively from "Chronica d'elrei D. Manoel por Damião de Goes, parte 3ª, cap. LIX," and from "Diarii de Marino Sanuto, Vol. 18, col. 141 e 142, Nos. 76 e 76.*")

- (26) *1517-1518 Cartas do bispo Matheus a el-rei D. Manoel. Coimbra, Imprensa da Universidade, 1907.

(Two letters in which the Armenian bishop Matheus, ambassador of the Abyssinian queen Helena, complains about having been maltreated by captains of the Portuguese fleet. Text and notes reprinted from "Documentos arabicos por fr. João de Sousa, Lisboa, Off. da Academia, 1790, pp. 89 e 97.")

- (27) Relacion de la iornada, expvgnacion, y conquista de la isla Tercera, y las demas circunuezinaz, q̄ hizo Don Albaro de Baçan, marques de Santacruz . . . y del sitio y disposicion de la ciudad de Angra, y villas y lugares de su contorno, y de los moradores dellas, y castigos que se hizieron en ellos. [Lisboa, Imprensa Nacional, 1908] L.C. 19-4748.

At end: Fecha en la ciudad de Angra de la isla de la Tercera a onze de agosto, mil y quinientos y ochenta y tres.

(Reprint in close imitation of the copy in the Bodleian library at Oxford.)

- (28) *Svccesso dela iornada expvgnacion y conquista dela ysla dela Tercera, y delas demas yslas delos açores que hizo el illustrissimo señor Dõ Aluaro de Baçan Marques de Santa Cruz Capitan general de su Magestad. Y delos enemigos q̄ auia en la dicha ysla, fuertes, artilleria, y armada Francesa y Portuguesa. Y del sitio dela ciudad de Angra. [woodcut] Y del castigo que se hizo en algunos, y otras cosas notables que succedieron en la dicha

conquista. M. D. L XXXIII. (Lisboa, Imprensa Nacional, 1909; L.C. 4-34215.

(Facsimile reprint of the copy in the Library of Congress, Washington, D.C.)

- (29) *Carta do capitão Gaspar Gonçalves Dutra a Lopo Gil Fagundes, em Lisboa, sobre os acontecimentos na ilha do Fayal em 1589. Lisboa, Imprensa Nacional, 1908.

(Account of the atrocities committed by the English subsidiary force, edited from the manuscript in the Bibliotheca da Universidade de Coimbra, MSS, Vol. 166, No. 23.)

- (30) Carta que enviou Hieronymo Moñtaro doutor aleman da cidade de Noriberga em Allemanha ao serenissimo Rey dõ Joham ho segũdo de Portugal. Sobre ho descobrimẽto do mar Oceano e prouincia do gram Cam de Catay tirada de latim em lingoajem por mestre Aluaro da Torre, mestre em theologia da ordem de Sam Domingos pregador do dito senhor Rey. 14 de julho de 1493.

- (31) Carta de Alberto Cantino ao duque de Ferrara.

(Sobre a viagem de Gaspar Cõrte-Real, 17 de outubro de 1501).

- (32) De ora antarctica per regem Portugallie pridem inventa. (Publicada em Strasburg [Argentina] em 1505).

- (33) *Carta de el-rei D. Affonso IV ao papa Clemente VI, de 12 de Fevereiro de 1345. Lisboa, Imprensa Nacional, 1910.

(Letter in Latin reproduced in facsimile from the transcript of MS "Archiv. Vat. Reg. Vat. 138, ff. 148-149." At end: Dat. in Castro Montis maioris novi XII die mensis Februarij. Collatum cum originali concordat. Ex Archivo Secr. Vat. die 23 Dec. 1909. D. Angelus Melampo Primus Custos eiusdem archivi." The facsimile is followed by the Portuguese translation of Sr. Joaquim José da Costa de Macedo [with caption title as above], the last two paragraphs being translated by Sr. José Pedro da Costa. According to the notes of the editor, a part of the letter was previously published by Oderico Raynaldo in his continuation of the *Annaes Ecclesiasticos de Baronio*, and reproduced by Sr. da Costa de Macedo in his treatise "Para a historia das navegações e descobrimentos," published in the *Memorias da Academia Real das Sciencias*, Vol. VI, Part I, 1819).

- (34) *Supplemento á carta de el-rei D. Affonso IV ao papa Clemente VI. Extracto das cartas dos mercadores florentinos feito por Gio. Boccaccio da Certaldo. 1341.

Caption titles: De Canaria et de insulis reliquis ultra Hispaniam in oceano noviter repertis.—Tradução por Joaquim José da Costa de Macedo, 1835.

(The text was first published in "Monumenti d'un manoscritto autografo di Messer Gio. Boccaccio da Certaldo, trovati ed illustrati da Sebastiano Ciampi, Firenze, per Giuseppe Galletti, 1827, 8°. Cap. I. pp. 53 e seguintes." Not being able to obtain a copy of that book or a photograph of the extract, E. do Canto published text and translation from Macedo's edition in "Memorias da Academia Real das Sciencias," Vol. XI, Part II, 1835. The transcript is erroneously ascribed to Boccaccio. The present edition was issued in 120 copies "destinados a offertas.")

The last two publications of the preceding list deal with the Canary Islands, the discovery of which—claimed by various nations—should, in the opinion of Eugenio do Canto, be attributed to the Portuguese. Apart from its value as a historic document, King Alfonso's letter to the Pope is of interest as a specimen of medieval diplomatic correspondence and is here given in English:

Letter of King Alfonso IV to Pope Clement VI, February 12, 1345:

To the most holy father and Lord, Lord Clement by divine providence the highest priest of the holy and universal church your humble and devoted son Alfonso, king of Portugal and Algarve, with due reverence and devoted kisses of the blessed feet. It was the will of Him, who founded his holy church on the highest cornerstone that it should be so governed in future by his successors that righteous in every way it should steadily gain in weight, number and extent so that by increase of the faithful and by unnerving pagan perfidy, the christian faith should flourish in every respect. And, you indeed, the most worthy successor of the Lord, to whom is committed every kind of care and concern for the Christ-serving flock, strive not only to guard it from the attacks of the wolves but also to extend it, as we have learned from letters sent by your Holiness, when the extirpation of the unhappy vines of infidelity which now uselessly beset the whole region of the Blessed Islands, and for the planting of God's beloved vineyard, you appointed S^r. Luis, a kinsman of ours, to be their prince.

Responding to these letters from our point of view we shall reverently state in due order that previous to this the said islands were discovered by subjects of ours; we however, considering that the said islands are nearer to us than to any other ruler and may therefore be more easily subjugated by us, turned the eyes of our mind to this and wishing to make our thoughts effective, we sent our men and some ships that they should explore the condition of that country. When they had landed at the said islands, they seized

men as well as animals and other things by force and brought them to our country with immense joy. But when we were planning to send our armada with a large number of soldiers on horse and afoot to conquer the said islands, war arose—first between us and the king of Castile, later between us and the Saracene kings—and prevented us from carrying out our project. All this being a matter of common knowledge is doubtless known to your Holiness. Moreover we know from a letter written by the aforesaid Sr. Luis that our ambassadors whom we recently sent to your Holiness when their attention was called to the provision and assignment of the said islands made by you to the same Sr. Luis, apprehended—and not without good reason—that this might be a burden to us and they have as much intimated to you. Considering that the said islands are in our vicinity and that their conquest would be convenient and opportune for us rather than for others, and also with regard to the expedition already successfully begun by us and our men, they thought that your Holiness should—before asking anyone else—rather have requested us to bring that undertaking to an honorable conclusion or that at the least your Holiness should have made a suggestion to that end in a reasonable way. We, however, the above said notwithstanding, desiring to follow in the steps of our predecessors who always took care to obey the apostolic mandates, shall in every way conform our will to your will and disposition—as stated above, out of reverence for you and the apostolic sanctity, and especially because you elected the noble and prudent man Sr. Luis, our kinsman, to be the prince of those islands, who with divine assistance and with the support of your clemency and that of the Apostolic See, in so great and pious an undertaking, will prove to be such a laborer and husbandman in the cultivation of the vineyard of the Lord Sabaoth *viz.* the holy church of God, that the honor and glory of Christendom will in time to come be greatly increased by his ministry. But in regard to what your piety requests of us and rather earnestly exhorts us in the Lord, namely that out of reverence for the Divine and Apostolic See and its zeal of faith, we should give careful attention to the prince himself and to the undertaking mentioned above, and should assist and favor him as much as we conveniently could, that the said prince might at the least draw liberally from our realm and lands, ships, armed men, provisions and other things needed for the said undertaking, although at his own expense and at fair prices, we wish to assure your benign clemency, that both the prince and his undertaking shall be attended to in view of what is stated above and that we shall grant him assistance and favor if we can conveniently do so. But o who can concede what he has not? For who when his lambs are athirst will permit the water that springs in his land to flow for the benefit of other neighbors? Must not ordinarily charity begin at home? Have we not also recently, gracious father, through our ambassadors explained to your beatitude the difficulties that we have in defending and spreading the orthodox faith which difficulties led us humbly to beseech your apostolic sanctity

to vouchsafe alleviation of our burdens by piously and paternally remitting the tithes due by the churches of our kingdom? For who can induce a king to beg when he is not in want? May therefore your Holiness excuse us in this since impossibility excuses us. Our armed men, however, and our ships, even if there were more in existence, we cannot on account of the war which we are waging and intend to wage with the perfidious and powerful Agarenes dwelling as they are in our immediate neighborhood, dispense with and depute to the support of others since they are so much needed by us and our kingdoms. But regarding provisions and other material needed, freely to be drawn from our kingdoms and lands for said undertaking as stated above, we intend—in as much as we are able to do so without inconvenience to our kingdoms and their inhabitants, out of reverence for God, your Holiness and that of the Apostolic See, and because of zeal in faith and also in consideration of the aforesaid prince, our kinsman—to render to the same prince every assistance and favor as far as it is in our power to do so. May the Almighty guard your Holiness for a long time to come. Given in the castle Monte Major Novo February 12, 1345.

The authenticity of this letter has been disputed by Portuguese scholars on grounds which in the opinion of Eugenio do Canto are refuted by the letters of the Italian merchants as transmitted in "Boccaccio's" extract. Recently an Austrian scholar, Dr. Dominik Josef Wölfel, has been engaged in research concerning the early history of the Canary Islands, the aboriginal inhabitants of these islands, their language, and their ethnic relation. The scope and method to be pursued in this investigation is outlined in his article "Bericht über eine studienreise in die archive Roms und Spaniens zur aufhellung der vor- und frühgeschichte der Kanarischen Inseln" (*Anthropos*, XV, 1930, 711-24), at the end of which he states that a treatise "Die kenntnis der Kanarischen Inseln im 14. Jahrhundert" is to follow. In answer to an inquiry, Dr. Wölfel wrote me that both the letter of King Alfonso to the pope and the extract from the letters of the Italian merchants (by Ciampi wrongly ascribed to Boccaccio) are undoubtedly genuine. The extract is one of the best and, so far as now known, the oldest reliable source for the knowledge of the Canary Islands. It is due to the efforts of Dr. Wölfel that the material of sources has been multiplied eightfold. The photocopies of the various records and documents are deposited in the "Archivium Canarium" of the African Section of the Ethnological Museum at Vienna, and constitute a center of study for this particular field such as nowhere else exists.

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THE EXPANSIVE CLASSIFICATION IN USE

RECLASSIFICATION, its need and expense, has been a constantly recurring topic for discussion for many years. There was no classification suitable for the large university or reference library until the formulation and printing of the Library of Congress schedules. Reclassification usually implies a change to this system. Its adoption gives a sense of permanence, since it is used in our National Library and published by our government. Few, if any, American librarians today would question its choice for this type of institution. While no classification is above criticism, the Library of Congress has profited by earlier codes, and it has great possibilities of expansion. Additions for new subjects are mailed to all subscribers, and numbers for the individual books appear on the printed catalog cards.

The majority of libraries antedate the Library of Congress system, and for that reason they were forced either to devise an individual scheme influenced by local conditions or to adopt a system inadequate to their needs. This unfortunate fact was recognized, as was also "the strain upon knowledge, skill and common sense" necessary for the making of a classification which would meet the requirements. One of our predecessors, Charles A. Cutter, was unabashed at the undertaking. Years of thought and experimentation brought forth his Expansive system. This work is still generally conceded to excel in scientific and logical arrangement. The possibility of expansion and the mnemonic feature were also points in its favor.

It may be of interest to consider how far this Cutter system has proved satisfactory in one library, that of the University of Wisconsin, which adopted it forty years ago. Mr. J. C. M. Hanson, then a member of the staff of this institution, took an active part in the discussions which led to a decision in favor of the Expansive classification. Here, before going to the Library of Congress as chief of the Catalog Division, he became familiar with the system, its strength and its limitations. Here, in 1896, he drew up rough drafts of a scheme combining features of the Expansive and Poole classifications. These same rough drafts were later used as a basis for a definite proposal for the Library of Congress scheme.

Both the Expansive and the Library of Congress systems were made for books. Table I shows the similarity and differences of subject arrangement.

TABLE I

Expansive	Library of Congress
A. General works	A. General works
B. Philosophy—Religion	B. Philosophy—Religion
C. Judaism and Christianity	C. History—Auxiliary sciences
D. Ecclesiastical history	D. History and topography (except America)
E. Biography	E-F. America
F. History	G. Geography—Anthropology
G. Geography	H. Social sciences
H. Social sciences	
I. Demotics, Sociology	J. Political science
J. Political science	K. Law
K. Law	L. Education
L. Natural sciences	M. Music
M. Natural history	N. Fine arts
N. Botany	P. Language and literature
O-P. Zoology	Q. Science
Q. Medicine	R. Medicine
R. Technology	S. Agriculture
S. Engineering	T. Technology
T. Mechanical engineering	U. Military science
U. Combative and preservative arts	V. Naval science
V. Athletic and recreative arts	
W. Fine arts	
X. Philology	
Y. Literature	
Z. Book arts	Z. Bibliography and Library Science

Opinions will differ as to the interrelations of subjects. It is difficult to keep up to date in this respect, since current thought influences subject aspect, as is the case with Psychology in its relations with Philosophy, Education, and Biology. After Law, Mr. Cutter preferred to consider the Natural, then the Applied sciences, passing from the art of war to the Recreative and Fine arts, and last to what he terms "the arts of communication by language"—first the printed language, Philology, then the written, Literature, and, finally, the Book arts. On the other hand, Library of Congress inserts Education, the Fine

arts, and Language and literature with these continuing the thought of the intellectual development of man. These subjects are followed by the natural and applied sciences, with Z, Bibliography and Library science, at the end, as in Cutter, the Book arts.

In 1893, when Wisconsin decided on the Expansive system, the first six classifications for small and medium-sized libraries were completed, with an index. The Seventh, planned as the most detailed for large university and reference libraries, was not yet finished. Some of its classes were later developed and printed in full, but too late for adoption by this library; so it was in some cases necessary to use the Sixth for a basis and expand it. The collection of books and local conditions naturally played an important part in the results. The librarian usually made an outline based on the best available authorities. This was referred to an expert in the field, generally a member of the faculty. The results have not always been continuously pleasing, even to those responsible. Such was the case for the Botany scheme which was criticized adversely by the very professor who had worked it out, he having forgotten his connection with it. As the Library of Congress printed schedules have become available, they have been freely consulted and have influenced later additions in the various classes.

B, Philosophy and psychology, follows the earlier scheme, with expansions, since the elaborate classifications, Philosophy—which Mr. Cutter worked out with the aid of Professor H. N. Gardiner of Smith College—and Psychology, founded on one by Professor G. F. Stout of the University of Oxford, were not finished until 1900.

From BR, Religion, through E, Biography, the printed schedules are used with comparatively minor changes and additions. F, History, has naturally required large insertions and expansions to keep abreast of the times, such as a full scheme for the European war, and in some cases for countries where necessitated by material and use. The history of the United States and Great Britain is not represented to any extent in the university library, since it shares the building of the Wisconsin State Historical Society which specializes in this field. H, Social sciences, and I, Demotics, have been entirely worked over, since both include subjects which have developed largely since the original scheme was outlined, as well as classes in which large purchases have been made. The printed schedule for J, Political science, has been expanded for current developments in such fields as international law and relations. There is a separate law library, but in the

main collection provision has been made in K for works of general interest, such as Roman law, books on women, family relations, etc. Q, Medicine, has the detailed printed scheme to which changes and additions have been freely made to meet new developments along this line. With the exception of medicine, all the natural and applied sciences and subjects through Z have been fully worked out and expanded; but it is not the intention here to go into all the details of the work involved.

Philology as a class precedes Literature in the Expansive as well as in the Library of Congress classification. Wisconsin has preferred to have the literature of a country follow its language. This has been done by combining the last letters in the alphabet with the language number, as is shown in a few numbers for the German language: X47—Periodicals, X47AR—Bibliography, X47F—Etymology, X47M—Dialects, X47P—History of literature, X47X—Collections of literature, X47XP—Collections of poetry, X47Y—Individual authors, e.g., X47Y .G55 Goethe. X, Y, Z, added to the number of an individual, indicates respectively biography, criticism, and bibliography.

In general, the University of Wisconsin Library has followed the original Cutter idea in using letters for the classes, decimals for form divisions, and the number table for countries. A few exceptions have been made, as in Pharmacy where LVF is used for vegetable drugs in general, and LVG for the special drugs which are arranged alphabetically by Cutter number, e.g., LVG .D56—Digitalis. While the Expansive was designed as a close classification, the schedules at Wisconsin are not as detailed as those of the Library of Congress, except in case of special collections, as, for instance, Railroads. HJR provides for the general subject and its form divisions, HJRA—HJRY for the many minute subdivisions of railroad management and service, valuation, finance, taxation, rates, etc., and for the individual railroads. The special chess collection has also a scheme VRS—VSX as detailed as that of the Library of Congress.

The Expansive notation has been criticized as cumbersome, but there has been little if any trouble. The letter combinations are not as diverting as might be expected. Some are apt, as BUG—Cheiromancy, Palmistry; others are disappointing, as TNT—Electroplating; others again suggest error, as OX—Mollusks. Although the younger generation has the reputation of being unfamiliar with the alphabetical sequence, books are both found and shelved with ease.

The foregoing summary shows that the Expansive classification

adopted forty years ago by the University of Wisconsin Library has proved adequate to the required amplification of passing years, avoiding the labor and expense of reclassification which has been found necessary by many libraries adopting other classifications before that of the Library of Congress was available.

The Cutter scheme, aside from its own individual worth, has been of great value to the library world as a basis for later expansion and adaptation. For obvious reasons it cannot be recommended for adoption in libraries today, but its many fine qualities will continue to make it known while the names of many other classifications are forgotten.

ELIZA LAMB

UNIVERSITY OF WISCONSIN LIBRARY

LIBRARY EDUCATION

MANY years ago the writer made a plea for a better system of training librarians, especially those intending to serve universities and similar institutions. Since then some progress has been made in the direction advocated, as, for example, by the Graduate Library School of the University of Chicago; but it would appear that much remains to be done.

In this country there has been a tendency toward mechanization in education which may be due to the influence of the industrial development which, as is well known, rests rather upon mass production than upon careful attention to artistic detail. Our schools of education as well as library schools have been sinners in this respect. In general, it is not unfair to say there is a desire to exalt method so that in our grade schools it is more or less true that a teacher knows exactly how to teach and how to make out programs for teaching, but is very apt to know relatively less about the subject to be taught. So also in our library schools much time is spent in teaching pupils how to catalog, how to order books, how to classify the books for the shelves when received, what is the best manner of distributing them to the people, etc. Much less time seems to be spent in teaching what books really are, what differentiates one book from another, what type of books a particular library had better specialize in, and how the people ought to get the most out of libraries.

The movement started by Carnegie resulted in mass production of libraries, and for a time it was almost impossible to obtain a sufficient number of trained librarians and library assistants. Library schools sprang up like mushrooms and also engaged in mass production. And just as the schools of education and pedagogy have sought at various times to impose their ideas and ideals upon university teaching, so library schools have tried to control, and have been more or less successful in imposing themselves upon libraries intended for scholars and learned men. In this country all too often the assistants in a library designed for scholars make an impression upon the foreigner not unlike that left upon him by the salesmen or saleswomen in our bookshops. Generally speaking, these latter have only the most superficial acquaintance with the wares they sell and are selling books rather than

shoes because by accident the owner of a bookstore and not the proprietor of a shoestore hired them. A distinguished visitor once remarked to the writer that people in this country so often left him with the feeling that they were all dilettanti, because they had not been trained for their particular jobs. This viewpoint must not be pressed too far, since for some purposes our librarians and library assistants are well trained.

While, undoubtedly, European and other foreign libraries have learned much from the methodology of libraries in this country, we, on the other hand, have profited relatively little from the practices of foreign libraries. It is true that in Europe many great librarians have known little of the Dewey system of classification or the exact rules of capitalization, and the catalogs are often inadequate and not standardized at all. On the other hand, the men and women working in the better European libraries are often themselves great scholars, fully acquainted with the treasures in their respective institutions and fully competent to be the helpers and advisers of the scholars and men of learning who use these libraries. After all, is time really so important and valuable for a scholar engaged in an important piece of research that it is vital for him to have the book for which he calls brought to him in two minutes and a quarter instead of in three minutes? This is not as fanciful as it seems, for there was once upon a time the head of a great library in this country whose annual reports were filled with statistics showing the fractions of minutes it took to deliver books to users. There are European libraries where it takes hours to obtain a book, and this is annoying, but, after all, it is still more annoying for a scholar to find in an American library no one who can give the bibliographical assistance and advice which it is not improper to expect.

European libraries often are divided into fields of learning and a single individual will handle a whole field. In this country, nearly without exception, a library, even a university library, is organized by departments of work, viz.: ordering department, catalog department, etc. In European libraries very frequently the departments are those of economics, history, physics, botany, etc., and the individual in charge is a specialist in his or her field, who will order the books falling within such a special field, classify these books, catalog them, and see to it that those who can make the best use of them are properly advised. Such men and women will be able to build up scientifically great collections under their charge and aid in the dissemination and

increase of learning. This obviously is not the function of most public libraries, but it should be one of the functions of libraries of universities and similar institutions. For such purposes it may be preferable to have the librarian thoroughly trained in some field of learning rather than in the mere matter of library science; it is certainly easier to gain sufficient knowledge of the latter than of the former.

It is not even clear that in the long run a library staff composed of scholars would cost more than one composed of ordinary library-school graduates. The former would not have to spend hours of time in trying, sometimes unsuccessfully, to discover what a book is and what it deals with, but probably would know more or less about the book before it was ever received in the library. The result would be that in many cases the cataloging and classifying, while very likely technically not correct, nevertheless would probably be from a scholar's point of view better than that of a library-school graduate unfamiliar with a possibly abstruse treatment of a technical subject. Moreover, the type of librarian referred to would do that work relatively quickly, so that in spite of the fact that his pay measured per hour would be far greater than that of an ordinary library-school graduate, nevertheless by using fewer hours he or she would not in the long run prove more expensive. Furthermore, probably less people would be required if they were of the type indicated.

All this is not meant in the least as a slur upon the thousands of able and conscientious graduates of library schools. They have a very important and useful function to fulfil in this country. The plea, however, that is made here is that their activities should be confined to those institutions for which their training qualifies them, and that the ordinary library school should not seek to enter the field of learned institutions where the requirements and needs are entirely different from those of most public libraries. In other words, alongside of mass production we should also have the detailed work that requires the artist and the scholar and the man of long scientific training.

There is one difficulty. Most people trained in some special field of learning desire a position as academic teacher. But not all scholars are good teachers, and many of them would be more proficient in handling books than people. It is true that at present some of the products of our graduate schools would feel it to be *infra dig* to enter library work. This is because noted scholars in this country, generally speaking, have not gone into library work, though there have been and are exceptions to this rule. Nevertheless, the present time would seem a favorable

one to try a new tack. The depression has resulted in having fewer jobs available in the academic field just as in industry. Possibly here and there a young scholar who ordinarily would have scorned to take any place other than that of an instructorship in college or university, may under existing conditions content himself with a position as teacher in a high school or even grade school, or be glad to be a library assistant in a university or college library. If this movement made headway, it would soon come to be thought entirely proper for men of learning to be librarians, as was true in the Middle Ages and has continued to be true in Europe to a large extent to this day.

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THE ANONYMOUS CLASSIC AND SOME PROBLEMS OF ITS CATALOGING

CI FALT la geste que Turolfus declinet. Thus runs the 4002d, and incidentally, the last line of the *Chanson de Roland*.¹ For nearly a century scholars have pondered over its meaning, and even today opinion remains divided as to the exact interpretation. The word *declinet* is obscure, and Turolfus, frequently known as Turolf, Touroude, or Théroulde, may have been either the author or just the reciter of this poem.² Likewise there is a possibility that he was both. Technically the poem is to be classed among the French *chansons de geste*, of which it is one of the earliest and best examples.³ Its subject matter concerns the wars of Charlemagne in Spain, and, in particular, the battle of Roncevaux and the deeds of the heroic Roland. The sources of the poem are buried in obscurity, but if we may believe the famous scholar of Old French, Joseph Bédier, the *Chanson de Roland* grew out of two legends about the battle, the earlier being a local, popular legend which was followed by a learned legend constructed by the monks of a monastery near Roncevaux.⁴ Probably the poem is the most ancient of the *chansons de geste*, and its composition may be placed approximately between the last part of the eleventh century and the first part of the twelfth.⁵ Events mentioned in the poem, the use of assonance, the date of the introduction of certain words into the French language, and the existence of various manuscripts of the poem have somewhat determined the century. Of the existing manuscripts the outstanding copies are at Oxford and Venice, and even these show marked differences.⁶ About 1130 a free translation, which is sometimes designated as a paraphrase, was made in German by a German ecclesiast, generally known by the name of

¹ *La Chanson de Roland. Texte critique* ... par Léon Gautier (Tours (1887)), pp. 52+603.

² Joseph Bédier, *La Chanson de Roland commentée* (Paris, 1927), pp. 31-37.

³ Daniel Mornet, *Histoire générale de la littérature française* (Paris (1925)), Part I, pp. 12-14.

⁴ Bédier, *op. cit.*, pp. 10-130.

⁵ Mornet, *op. cit.*, p. 12.

⁶ *Chanson de Roland. Extraits* ... par Gaston Paris. . . . 16. éd. (Paris (19-?)), pp. xxiii-xxiv.

Konrad der Pfaffe.⁷ It was largely through this version that Roland became enormously popular as a hero throughout Germany. Many different variations, adaptations, and imitations of the original poem resulted in other countries. In Spain the *Cantares del Cid*, and in Italy Ariosto's *Orlando furioso* were among the most famous; though in each of these the story has been so changed as to bear little resemblance to the original. Thus it may be said that the *Chanson de Roland* had an enormous influence on European literature for many centuries.⁸

Such, in brief, is the literary history of the famous *Chanson de Roland*, which to catalogers is one of the best-known examples of an anonymous classic. On the surface there appear to be few difficulties for the unwary. To the average cataloger in the average library anonymous classics do not often present serious problems. If Library of Congress cards are in use in such an institution, the simplest way of handling the book is to follow the entry suggested by the Library of Congress. Occasionally, however, the smaller library does not care to adopt such a formal entry, particularly if the form decided upon at the Library of Congress happens to be in another language than English. Such is the case very often with copies of the *Chanson de Roland* itself, which the Library of Congress enters in its most authentic form, *Chanson de Roland*, while many smaller libraries prefer the English form, *Song of Roland*, or, perhaps, the single word *Roland*. If such an institution desires further help in cataloging, it will no doubt consult Fellows' *Cataloging rules*, where fairly full directions for procedure and a selected list of the more important anonymous classics entries are given. No additional information is to be found in the 1908 edition of the A.L.A. *Catalog rules*, nor in Cutter's *Rules for a dictionary catalog*, to which both Fellows and the A.L.A. *Rules* refer, except that Cutter gives some examples of pitfalls which should be avoided in choosing the entry for the first words of the classic, such as "Incipit," "In Hoc," etc. Nor does *Introduction to cataloging and the classification of books* by Margaret Mann go perceptibly farther in offering guidance to such a cataloger. The gist of the information gleaned from all of these aids is that anonymous classics are to be entered under the title by which they are best known, preferably the English form. Mann and Fellows group anonymous classics with the Bible and other sacred

⁷ Konrad, pfaff. *Das Rolandslied des Pfaffen Konrad*, Hrsg. von Carl Wesle (Bonn, 1928), pp. lii-326.

⁸ *Chanson de Roland. Extraits ...* par Gaston Paris . . . pp. xxxii-xxxiv.

books; Cutter, in Section 123, gives the rule for entry for the Bible, and in Section 124 states: "Other sacred books, also national and popular anonymous classics should be treated in the same way"; while the A.L.A. *Rules* devotes a separate rule to: "Epics, national folk tales, etc." which immediately follows that given for the "Bible and similar sacred books." No one will argue that an undue amount of space is allotted in any of these cataloging guides to the anonymous classics, but with the combined information thus obtained and the help of the Library of Congress cards, the average library will probably be able to catalog this type of literature satisfactorily, largely because only a limited amount of such material will be bought, and the greater part obtained will be in the English language.

The college library and the larger library will, however, have to seek elsewhere for information. They will be beset with problems of different versions, translations, and adaptations of the more important anonymous classics and perhaps more puzzling than any of these points will be the decision as to when the anonymous classic entry is to be used. On this last point Fellows gives the most illuminating explanation of any of our textbooks, but even here the points are insufficient:

Under the term "anonymous classics" are included epics, national folk tales and some other works whose authors are unknown and which have appeared under various forms of title, either in the original or by translation (e.g., *The Arabian nights' entertainments*, *The thousand and one nights*, *Stories from the Arabian nights*, *Book of the thousand and one nights*, *Tales from the Arabic*, etc.) so that entry under the first word of the title (as for the ordinary anonymous book) would result in the scattering of editions.⁹

From the above we may gather that Fellows and, indeed, most people concerned with the cataloging of anonymous classics, include in the term and mark out for such cataloging treatment, epics, national folk tales, and other anonymous works which have appeared under various forms of title. This rule seems satisfactory on the surface, but how is one to be sure of the exact meaning of the word "epic"? Also, what sorts of literature are included under national folk tales? And is it perfectly clear where one should draw the line in regard to "works whose authors are unknown and which have appeared under various forms of title, either in the original or by translation"? More important than a decided indefiniteness in regard to these three types of literature, however, is the omission of any directions as to how to

⁹ Dorcas Fellows, *Cataloging Rules*. . . . 2d ed. rev. and enl. (New York, 1926), p. 99.

handle material which has been brought out at a later date by some one author under his own name.

To return to the first class, what is an epic? And to bring to the fore again the example of the *Chanson de Roland*, do we include such literature in this term? Epics are generally understood to be poems in stately verse which celebrate the achievements of heroes or demigods. To this definition the *Chanson de Roland* seems to fit itself. Likewise, epics are generally supposed to belong to an early period in the history of any people, which is related in the poems in more or less accurate fashion. But at once we are confronted here with a division among epics; they may be poems that represent spontaneous outbursts of a people and which cannot be attributed to any definite authors, or they may be poems composed by a definite person or persons who have cultivated minds and who are simply using a long-established form. It is with these two types of epic that trouble arises in regard to the use of the anonymous classic entry. A careful investigation must be made of the literary history of such poems as the *Iliad*, the *Odyssey*, the *Ossian*, the *Roman de la rose*, before this question of authorship is solved. In too many cases, alas! even after considerable study, the cataloger arrives at some such stumblingblock as in the case of the *Chanson de Roland*. He does not know, nor does anyone exist who can state definitely, what part Tuoldus played in regard to the composition of this poem. If it can be proved beyond a doubt that he was the author, then catalogers would be more accurate in entering under his name rather than under the anonymous classic entry. Most catalogers prefer this personal form for the twelfth-century German version of Konrad der Pfaffe, though the gist of the *Chanson de Roland* may be found in this version. The Library of Congress accepts the personal entry as being the more exact for Konrad, though the cards trace an added entry for the *Chanson de Roland*. At this point it might be well to mention an apparent inconsistency on the part of the Library of Congress in regard to the *Roman de la rose*, about which there no longer exists any doubt as to authorship. The first part was composed between 1225 and 1240 by Guillaume de Lorris, the second between 1275 and 1280 by Jean de Meung.¹⁰ The personalities of the two poets are clearly distinguished in their work; the first part is a poem by a young man who expresses as in a dream the *esprit courtois* of his time; the part written by Jean de Meung is a biting satire on women in particular, and to a lesser degree on the clergy. It is this second part which

¹⁰ Daniel Mornet, *op. cit.*, p. 15.

started a literary quarrel which was to exist in Europe for a long period of time.¹¹ Possibly the widespread literary results of this quarrel have caused the Library of Congress to stick to an anonymous classic entry for this poem; perhaps the entry may be accounted for by the fact that the *Roman de la rose* is undoubtedly the work of two distinct men; or it may be that this entry is due to the fact that so many different versions appeared at an early date in the French, to say nothing of the Middle English variant formerly known as Chaucer's, and such imitations as the Italian poem, *Il fiore*. Whatever may be the reason, the fact that Brunet's *Manuel du libraire et de l'amateur des livres*, Harvard College Library, the British Museum, and the Bibliothèque Nationale all make the main entry under some form of Guillaume de Lorris' name gives cause for reflection.

The second type of literature generally included under the anonymous classics for purposes of entry is the national folk tale. In a recent book called *The Science of folk-lore*,¹² Alexander Haggerty Krappe distinguishes carefully between the different types of material included in the term folk lore. These types are very numerous, and separate chapters are devoted to the following: the fairy tale, the merry tale, the animal tale, the local legend, the migratory legend, the prose saga, the proverb, the folk song, the popular ballad. Some of these types, so far as the cataloger is concerned, overlap with material that might be included under the epic. *Reynard the fox*, for instance, is an animal tale, but it is frequently designated as a medieval beast epic. What is of special interest to the cataloger, however, is the fact that Professor Krappe includes among his types the fairy tale, for which quite as much research is required on the part of the cataloger as in finding the proper entry for an epic. There are three points of interest about the fairy tale: (1) the unusually large number of versions and variants of the more common tales; (2) the fact that comparatively few fairy tales are important or long enough to be printed by themselves and to require individual entries; (3) the fact that several famous men of letters have been given the credit for having written certain tales which originated at a far earlier period. The third point will be handled in connection with the question of versions of anonymous classics in general which have been treated among the individual works of well-known literary men.

Most anonymous classics are supposed to have several versions or

¹¹ Guillaume de Lorris, *Le roman de la rose mise en français moderne par André Mary* (Paris, 1928), pp. 391.

¹² New York, 1930, pp. xxi+344.

variants whose publications have appeared over a long period of time. There are a good many fairy tales, however, the multiplicity of whose versions and variants leave any comparison with the ordinary anonymous classic quite out of the question. The case of *Cinderella* is, perhaps, the most complex. A glance at the entry under that tale in Eastman's *Index to fairy tales* starts one on the quest by revealing the names of many similar stories. A publication of the Folklore Society by Marian Rolfe Cox, *Cinderella; three hundred and forty-five variants*,¹³ which has an introduction by no less a person than Andrew Lang, plunges one headlong into a torrent of possibilities. Lang thinks that the fundamental theme is that a person in a mean or obscure position makes a good marriage with the aid of supernatural assistance. He believes that it is the same idea as in *Puss in boots*, though in the latter the person is a man, not a girl. In both cases supernatural aid leads the central character on to success. Lang then proceeds to make a genealogical table for *Cinderella*. This traces the story from the original tale, which Lang thinks is probably of savage origin, to the modern literary version of Charles Perrault in 1697. As a summary of the evolution of such tales one can do no better than to quote Lang's conclusion as to their origin and development:

I suppose, then, that story tellers have always been making combinations, that the best and most dramatic survived in most vigour, that a good type, like *Cinderella*, once hit upon, was diffused widely. Beyond this, my theory does not go, and I am perfectly ignorant of the name, and date, and home of the first fortunate combiner.¹⁴

The best that the cataloger can hope to do in such cases is, therefore, to give an anonymous classic entry for *Cinderella* for want of something more definite, and to extend this same entry to cover translations and versions that seem basically the same. Fortunately, point two is of great help in saving one from the necessity of making many such decisions. The majority of fairy tales are not very often printed individually under their own titles. Generally they appear as collections of tales brought together by one compiler or translator who is given the main entry; in some cases where such a compiler is not important in himself and is not given mention on the title-page, the book can be given a hanging indention entry under the title, whether it be a composite general title or a mere listing of the names of the tales included. Thus the cataloger is saved an enormous amount of searching which would be inevitable if every fairy tale were reprinted separately,

¹³ London, 1893.

Ibid., p. xxiii.

and in as many versions and variations as the majority of the longer anonymous classics.

The third point in regard to the fairy tale—that of the question where a man of letters has brought out his own literary version of a tale—is concerned not only with the fairy tale, but with the whole field of anonymous classics and the Bible as well. There is the matter of Goethe's version of *Reynard the fox*, Tieck's *Der gestiefelte Kater*, and many a story of the Bible. What is to be the main entry in such cases? To a student of literature it would seem folly not to credit a well-known literary man with the product of his own pen, since the resulting piece of literature is clearly an example of his own writing, however closely it may follow an earlier version. Some of these literary products follow very exactly the basic account; others like the *Cid* and *Orlando furioso*, in changing the events set forth in the original *Chanson de Roland*, have wandered far afield from the original plot. Only a central theme remains, which is almost as remote from the original as is the story of *Puss in boots* from that of *Cinderella*. There seems to be a tendency for most catalogers to enter even the more closely related works under the individual authors, though very often all sufficiently related material gets an added entry for the anonymous classic title. Such, for instance, is the case with Goethe's *Reynard the fox*. A few libraries go farther in tying up such versions and the most important variants with the original by forcing an anonymous classic entry as the main heading on any such book. Sometimes the result of such combinations is a little startling to the student of literature, especially in the case of *Reynard the fox*, where very nearly a dozen distinct versions or variants exist, each with an individuality all its own. The Library of Congress wisely attempts to segregate each as to main entry, though a common form is frequently suggested as an added entry. Thus, for example, instead of entering *Reinaert de vos*, *Le roman de Renard*, *Renart le contrefait*, etc., under the heading *Reynard the fox*, it makes a separate anonymous classic entry for each of these, suggesting to the cataloger that he can bring all such material together by means of an added entry. To the ordinary cataloger these separate entries often seem quite puzzling, and even unnecessary, but generally he has no conception of the investigation that has been necessary to bring about such minute distinctions.

There still remains the problem of cross-references. In no other field are they more necessary; in no other field are they more difficult to decide upon. The Library of Congress has been quite consistent in making *see* references from well-known forms of titles not used as

entries, to forms which have been used. Of course in cases where the individual library attempts to include all variants under a single heading, it will have to compile its own list of these *see* references. What has never been done is to compile *see also* cards on which are listed under each particular variant, version, or imitation which has been given a main entry, all other main entry cards for that same anonymous classic. The making of such cards may approach a Utopian ideal of a catalog, but it should not prove impossible. Much investigation has to take place before the making of the entry for each variant, etc., has been decided upon, and *see also* cards could be made as the result of the findings of each investigation. For the person using Library of Congress cards such references would often weave together the threads of many tangled literary decisions.

As for new light on the authorship of anonymous classics, catalogers should be wary about so-called important literary discoveries. Each case has to be tested thoroughly, and on its own merits. And some anonymous classics that were long ascribed to a certain writer, like the case of Nicholas of Guildford and *The Owl and the nightingale*, have finally had such authorship discredited and have returned to anonymity quite peacefully.¹⁵ P. Boissonade, in his *Du nouveau sur la Chanson de Roland*, makes out an excellent case for the authorship of this particular poem. He discusses fully the people by the name of Tuoldus or Tuold who might possibly have been the author, and narrows the case down to a certain Guillaume Tuold, an ecclesiast of Norman origin, who nevertheless settled in Spain and became thoroughly familiar with the region and legends near Roncevaux.¹⁶ Certain other authorities grant that a Norman Tuold may have been the author, but there is too much uncertainty about the meaning of the word *declinet*. Until more tangible evidence arises, it is better to continue to treat the *Chanson de Roland* as an anonymous classic, whose authorship is doubtful, and whose origin is still shrouded in mystery. After all, anonymous classics will not appear nearly so interesting after they have all found definite authors. The amount of uncertainty attached to this type of literature enhances its charm, as agrees even the cataloger after having delved rather fruitlessly into dozens of musty tomes in the attempt to settle an entry.

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¹⁵ *The Owl and the nightingale*, ed. by John Edwin Wells (Boston, 1909), pp. xxv-xxix.

¹⁶ (Paris, 1923), pp. 466-86.

ORDER OF BOOKS BY DATE UNDER SUBJECTS

WHEN the John Crerar Library was founded in 1894, the librarian, Dr. Andrews, adopted the then novel plan of arranging books—under each division or section of the classification—by the date of the book instead of alphabetically by the name of the author; and of filing cards—under each heading of the classed subject catalog—in inverse order of the dates of imprint. By this arrangement the latest book acquired by the library on a given subject stands last or at the end of the line on the shelf among books on the same subject; and the card representing it first meets the eye of the reader consulting the classed catalog for material on that subject. Cards for analytics are filed by date along with main entries.

The benefit of this order to the searcher for information is that it brings books to his notice in the order of their importance for meeting his needs. In science and technology it is the "last word" that counts. The latest work presents the advance of human knowledge in its special field. Some later writer may, it is true, show that the supposed advance is really a step backward; but that fact merely confirms what has just been said. The purpose of this paper is to recommend the date order for all informational literature in the arts and sciences and for critical works in the field of the humanities.

The critic of the plan may object that (1) the scheme is not applicable to fiction, to individual biography, to literature in the sense of belles-lettres, and to so-called classics in any subject; (2) the reader or the library assistant who goes to the shelf for a book by a certain author, or to the classed catalog to look it up, will not readily find it unless he remembers its date; (3) the reader using the shelves, accustomed to an alphabetic sequence by authors, will be confused by the date order and will, in fact, fail to discern any order at all; (4) the filing of cards in inverse order of dates calls for more than ordinary skill and presents a greater liability to error than does the alphabetical order; (5) the scheme is inapplicable to a dictionary catalog, which is essentially an alphabetic catalog.

These objections are of varying weight, and some rest upon a misunderstanding of the situation. Fiction, which is not a form of informational literature, should obviously be arranged by authors, not by

date. Individual biography is not, as a whole, a subject; it is a grouping of subheads, each of which represents a person whose life has been written. The date order will be used, not to arrange the names of the biographees, but to bring out in order of date the books that have been written about these men or women. The latest biography of a man is usually the one preferred—save for historical study of the literature—to an earlier biography. The date order brings the later book to the fore, whereas the alphabetic order hides it. The accident of a name may bring Parson Weems's life of Washington on the shelf in the spot where the latest critical biography of him should be found; and the card for Alger's life of Washington—if Alger wrote one—may first meet the eye of the student consulting the subject catalog for material on Washington.

Literature, in the sense of *belles-lettres*, includes both works of the imagination—such as poetry, drama, essays—and critical or descriptive treatises upon these works. The editions of a work by a given author are always, by standard practice, arranged in the order of their publication, not alphabetically by the names of the editors; and this order prevails even in the case of famous authors whose works may be asked for by the names of the editors, such as Malone's, Johnson's, or Richard Grant White's edition of the works of Shakespeare. This admittedly chronologic arrangement of both books and cards within an alphabetic system causes no confusion. Works about literature or about individual authors are commonly arranged in alphabetic sequence of the writers' names. The recommendation made here is that they be arranged by date. This rule will not apply to the works written *by* Greek and Latin authors, by great poets, dramatists, theologians, philosophers, and the like, but only to books *about* them. The order of such classic works will often be prescribed by the classification itself through subheads, and is not in question here. Cards will be filed in inverse order of publication of the books represented, under the proper heading in the subject catalog, the card with latest date being placed first and the card for the oldest book coming last.

The reader who uses the shelves or consults the subject catalog (or the subject entries placed in a dictionary catalog) to find a book by a certain author will not, it is true, find the book of which he is in search as easily if it stands or is cataloged according to its date as he will if the book stands in alphabetic order of the author's name on the shelf, or if its card is filed in that order; nor will the library assistant, if bent upon a similar errand, fare better. But what are they doing?

They are making a short-cut to a book by a certain author by way of the comparatively few entries under the subject rather than by looking through the more voluminous entries filed in the author catalog. The primary function of the classification and of the subject catalog is to guide readers to the material on a given subject, not to the works of a given author. Hence the chronologic sequence of titles under a topic, by which the most desirable material will be brought first to the attention of the reader, should not be sacrificed to meet the convenience of the person who wishes to use these library instruments for a different purpose.

The date order may be deemed inapplicable to the dictionary catalog because author and subject headings are arranged in it in one alphabetic sequence. But if the chronologic sequence of different editions of an author's work makes no confusion in the author entries, why should filing of cards in the order of dates under subject headings make confusion? Be that as it may, the reader is not intent upon finding out how the library is run. He is intent upon finding the material that he wants. If he finds the best book for his purpose, which is, as a rule, the one at the end of the line, or if the card for this book at once meets his eye as he turns to a given subject heading, he is satisfied. Why should he try to figure out just why he gets what he wants?

The date order of books on the shelves and of cards representing them under subject headings is in line with modern methods of scientific and critical research; it calls for no undue amount of intelligence or of training on the part of library assistants; its application to all informational literature will render the service to the users of the library more efficient.

WILLIAM STETSON MERRILL

OCONOMOWOC, WISCONSIN

THE LIBRARY ASSOCIATION EXAMINATIONS

IN HIS admirable paper, "Librarianship as a profession," contributed to the Edinburgh meeting of the Library Association of the United Kingdom in 1880, Mr. Henry R. Tedder, librarian of the Athenaeum, first joint-secretary of the Association and for many years its valued treasurer, said: "There is no question of deeper importance to us in the future than the training of a body of assistants fit to fill subordinate positions, but who may eventually look forward to occupying higher posts."

At the same meeting, Mr. Mullins, librarian of Birmingham, said: "As a rule the librarian has to educate his own assistants; in other professions it is possible to obtain trained help, but the rapid growth of the library movement has so quickly promoted juniors into principals that the librarian of today has to be to a certain degree the trainer for tomorrow."

The following motion was moved by Mr. Robert Harrison, librarian of the London Library, in Mr. Tedder's name: "That it is desirable that the Council of this Association should consider how library assistants may best be aided in their training in the general principles of their profession." This was cordially supported and carried unanimously, and a committee was appointed in pursuance of the motion. The committee thought it would be advisable to make arrangements for imposing a preliminary examination upon librarians and for the granting of certificates of proficiency, and that there could be no body better qualified for carrying this out than the Association itself.

The committee reported to the Council in 1881 with a scheme of examinations (*Monthly notes*, II, 62-64). The committee's scheme embraced two examinations:

(a) A preliminary examination before appointment, in which "every candidate was expected to show proficiency in the ordinary subjects of a sound English education." The subjects were: (1) arithmetic, (2) English grammar and composition, (3) English history, (4) geography, (5) English literature. Special attention was to be given to writing and spelling.

(b) An examination after appointment. A second-class certificate

was to be awarded to any librarian or assistant who had been engaged in library work for not less than one year and who should pass a satisfactory examination in the subjects numbered 1, 2, 3, 4, and 5 below. A cataloging knowledge of at least two languages besides English, of which Latin must be one, to be necessary for the certificate.

1. *English literature, especially of the last hundred years.*—Certain books were recommended for study, but candidates were warned that the examiners would take special care to see how far the candidates had examined the books themselves, and not merely read about them. It was also obvious that the candidate must be expected to have a more exact knowledge of the various editions and forms in which the works of leading writers have been published, and of the literature that has grown up around these works, than can always be derived from the ordinary textbooks of literature.

2. *Some one other European literature.*—The literatures of France and Germany were recommended. In each case easy passages for translation were to be set, and the languages in which the candidate satisfied the examiners were to be indorsed on the certificate.

3. *Classification.*—Candidates were expected to acquaint themselves with some of the chief systems of classification used in large libraries. Their practical knowledge would be tested by their being asked to classify a number of books given to them for that purpose. The candidates were also expected to have a general idea of the subjects with which the various departments of knowledge are concerned.

4. *Elements of bibliography and cataloging.*—The term "bibliography" was intended to cover a knowledge of the external history and character of printed books, and of the various modes of describing and cataloging them.

The cataloging knowledge and skill of the candidate was to be tested by placing before him a certain number of books to be cataloged according to the rules of the Library Association.

5. *Library management and administration.*—This subject was said to be one in which the examination must be of a specially practical nature, in which book-knowledge must hold a secondary place. This branch of the examination was to be directed rather to test the candidate's experience and his skill and readiness in dealing with the various practical problems submitted by way of testing his capacity. The candidate was to be examined as to his knowledge of the methods in use in his own library or in any other with which he might be acquainted.

FIRST-CLASS CERTIFICATE

A first-class certificate was to be awarded to a librarian or assistant of at least two years' experience for an advanced knowledge of the foregoing subjects, and also of general literary history. A cataloging knowledge of at least three languages, of which one must be Latin, were to be necessary for a first-class certificate.

Special advanced textbooks were recommended for this examination. A knowledge of bibliography was held to imply an acquaintance with the early history of printing, especially in the fifteenth and sixteenth centuries, or some acquaintance with the leading catalogs and bibliographical works, especially those produced in the English-speaking countries. The candidate was also required to be familiar with the Latin names of the towns most frequently found in imprints.

In the subject of library management and administration, the chief matters in which the candidate for a first-class certificate was to be examined were:

- I. Library buildings
- II. Library fittings and appliances
- III. Selection and acquisition of books
- IV. Shelf arrangement
- V. Catalogs
 1. Shelf lists
 2. Accession lists
 3. Catalogs for readers
- VI. Administration
 - a) Finance
 - b) Librarian's relation to readers
 - c) Circulation of books
 - (i) Lending department
 - (ii) Reference department
 - d) Stock-taking
 - e) Duties of the staff
- VII. Binding

It was stated that, for the present, persons who have not been actually engaged as library assistants might be admitted to the examination on obtaining permission from the Council.

The scheme thus adumbrated was not put into operation until July, 1885, when the first examination was held, and two students

were awarded second-class certificates. Examinations continued to be held on the foregoing lines until a new scheme was introduced in 1891. Cataloging was then divorced from bibliography and treated as a separate subject. There were thus six subjects which ultimately became the stereotyped examination for many years. Candidates were required to pass the preliminary examination before entering upon the professional examination. In 1894 the subjects for the professional examination were arranged in three sections: (1) bibliography and literary history; (2) cataloging, classification, and shelf arrangement; (3) library management. The preliminary examination was abolished, thus confining the examination to professional subjects only, while an entrance fee of 10s. was charged, but this might, at the discretion of the Education Committee, be returned to those who sat through the examination.

In 1904 the *Syllabus* was again revised, and now comprised:

- a) Study in various prescribed subjects, namely:
 - 1. Literary history
 - 2. Elements of practical bibliography
 - 3. Classification
 - 4. Cataloging
 - 5. Library history and organization
 - 6. Practical library administration
- b) Examinations in each subject and the writing of a satisfactory essay upon some aspect of each subject.
- c) Practical experience of not less than twenty-four hours a week for at least three years as a member to the administrative staff of one or more libraries approved by the Council of the Library Association.

No order was prescribed for taking the six subjects. Candidates were allowed to take them in any order they preferred, and certificates were given upon the results of the examination (including the essay) in any subject. The qualification of practical work in a library did not apply to candidates for certificates in the separate sections. The essays had to be written at home, and produced at the examination, accompanied by a written statement signed by the candidate, certifying that the essay was the unaided work of the candidate.

There was no examination fee and no preliminary examination. In 1907 a fee of 2s. 6d. was charged for each examination, but candidates might take as many subjects as they liked without extra fee.

No textbooks were prescribed, but sources of useful information were given. The special object of the examination as a test of the practical competence of a candidate was held in view by the examiners in setting the questions, and candidates had to bear in mind that reading alone is not of much value unless accompanied by a knowledge of books and methods such as can best be acquired by actual experience in a library.

Certificates were granted in three grades—Honors, Merit, and Pass.

DIPLOMA

Candidates for the full certificate or diploma of the Library Association must have passed the examination in each of the six sections, and, if required to do so, a further oral test.

Each candidate was required to make application not later than March 1 in each year to the Hon. Secretary of the Education Committee of the Library Association, asking to be granted the diploma. The application must be accompanied by:

1. A thesis showing original thought or research on some subject within the scope of the *Syllabus*, the subject being previously approved by the Council.
2. Certificates showing that the candidate has satisfied the examiners in each of the sections of the examination.
3. A certificate approved by the Council, showing that the candidate has worked for not less than twenty-four hours a week for at least three years as a member of the administrative staff of one or more libraries.
4. A certificate, approved by the Council, showing that the candidate possesses an elementary knowledge of Latin and of one modern foreign language.

After June 10, 1909, a fee of £2 2s. had to be paid by any applicant for the diploma. If the candidate failed to obtain the diploma, the fee was not returnable, but he was allowed to enter again on paying a further fee of 1 guinea.

An alternative was introduced into Section 2 of the *Syllabus*, whereby, for bibliography and book selection, there might be substituted bibliography and paleography and archives; Section 5 was renamed "Library organization," and Section 6 "Library routine." Candidates were charged a fee of 2s. 6d. for each section of the examination.

In 1915 the examiners reported that in Section 6, "Library routine," "the poor equipment of many candidates in grammar, general knowl-

edge, ability to express themselves in plain English, was again conspicuous in this popular section."

A special Education Enquiry Committee was appointed and reported *inter alia*: "For candidates who do not hold certain approved Certificates there shall be a preliminary test in English, grammar and composition, and in elementary general knowledge, including English literature." The result of this examination showed how necessary this was, for out of ninety candidates who sat the examination only thirty obtained a bare pass.

This preliminary test was continued until 1924, when it was finally abandoned, and candidates were required to produce certificates of university matriculation standard before sitting for any of the sectional certificates.

Further revisions of the *Syllabus* have altered the scheme in detail. An elementary knowledge of Latin is no longer compulsory but optional, a second modern language taking its place as a substitute; the writing of an essay in each of the sections of the examination is not required; nor is the writing of a thesis upon some subject within the scope of the *Syllabus* essential to the granting of the ordinary diploma. It is still required of those who wish to obtain a "diploma with honors."

The latest recasting of the *Syllabus*, which came into operation in May, 1933, provides for a graduated system of examinations, including: (1) the Elementary Examination; (2) the Intermediate Examination; (3) the Final Examination, Parts I, II, and III.

The Elementary Examination will include:

- I. Elementary English literary history (one paper of three hours)
- II. Elementary classification, elementary cataloging, and accession methods (one paper of one and one-half hours)
- III. Elementary library administration (one paper of one and one-half hours)

Candidates must pass in all three divisions at one examination.

The Intermediate Examination will include:

- I. Library classification (two papers of three hours each)
- II. Library cataloging (two papers of three hours each)

Candidates must pass in both subjects at one examination, unless an exempting certificate has been obtained in one subject.

The Final Examination will include:

Part I. (a) English literary history (two papers of three hours each)

or (b) The literary history of science (two papers of three hours each)

or (c) The literary history of economics and commerce (two papers of three hours each)

Six months notice must be given by candidates in either (b) or (c). (Any candidate who has graduated at an approved university in (a) English, or (b) science, or (c) economics, may apply for exemption from Part I of the Final Examination).

Part II. Bibliography and book selection (two papers of three hours each)

Paper 1. General bibliography and book selection

Paper 2. Historical bibliography

or Palaeography and archives

or Indexing and abstracting

Part III. Advanced library administration (three papers of three hours each)

The Education Committee recommend candidates to take the three parts of the Final Examination at one time; but candidates who are unable to do so may sit for it part by part, provided that they complete it within two years from the first successful sitting.

Candidates must submit evidence that they have an adequate knowledge of two foreign languages (both *may* be modern languages; one *must* be). The languages approved for this purpose are Latin, Greek, French, German, Italian, Spanish, Dutch, Irish, Welsh, and Swedish. In special circumstances other languages may be approved by the Education Committee. One language certificate must be submitted before entering the Intermediate Examination, and another before entering the Final.

Temporary regulations.—Candidates are required to take the three examinations in the order here set out; but candidates who hold certificates under the old *Syllabus*, and who apply to sit for an examination under the new *Syllabus* within five years from January 1, 1933, will be granted exemption as follows:

Holders of a certificate in section	To be exempted from
1. Literary history.....	Elementary (1) and Final—Part I
2. Bibliography, etc.....	Final—Part II
3. Classification.....	Intermediate—Part I
4. Cataloging.....	Intermediate—Part II
5. Library organization.....	Elementary
6. Library routine.....	Elementary
	} together Final—Part III

Diploma with Honors.—The "diploma with honors" is awarded to each candidate possessing the ordinary diploma, who, in addition, submits a satisfactory thesis showing research in some approved subject within the purview of the *Syllabus*. A fee of £2 2s. in addition to the ordinary diploma fee is charged.

A candidate possessing the diploma of the School of Librarianship of the University of London and desiring to obtain the honors diploma of the Association may do so on submitting an original thesis of approved merit and complying with the conditions as to library service. Fee, £3 3s. A list of the subjects already approved by the Council of the Library Association for theses of candidates can be obtained on application to the office of the Association.

Under the *Syllabus*, as now arranged, a candidate who passes the Elementary Examination and the Intermediate Examination and has submitted an approved certificate for one of the languages mentioned in the *Syllabus* is entitled to be registered as an Associate, provided the requisite library service has been completed.

A candidate who has passed the Final Examination may make written application to the Secretary of the Association for the award of the diploma and for election to fellowship to which he is thereby entitled—such election giving the right to the use of the designation "F.L.A." Application for the diploma must be accompanied by a fee of £1 1s.

TUITION

The Summer School was first held in London in 1893. This was the outcome of the reading of two papers at Liverpool in December, 1892, namely: (1) "On a plan for providing technical instruction for library assistants," by Miss M. R. James; and (2) "A Summer School of library practice," by Mr. J. J. Ogle. The School was established with a view to giving library assistants and students of librarianship an opportunity of visiting representative libraries and of hearing demonstrations of the various practical methods and details of a librarian's work. Visits were paid to the British Museum and other London libraries, under the guidance of their official heads, and to printing offices, type foundries, and binding establishments.

After 1894, a more definite character was given to the instruction by the addition of evening meetings at which lectures were delivered on cataloging, selection of books, etc. Many library authorities gave facilities to their junior assistants to attend the meetings of the School, and in several cases defrayed the expenses of their journey to London.

They were carried on until 1897. In the meantime, Mr. Ogle—himself one of the first students to gain a certificate—had established a "Library assistants' corner" in *The Library* in 1895, and Mr. Henry Guppy continued it as "Our junior colleagues' corner" in the *Library Association record* until 1902.

Correspondence courses were then started by Mr. James Duff Brown and Mr. J. H. Quinn, which were carried on by the Education Committee until 1930, when the conduct of them was handed over to the Association of Assistant Librarians' Section of the Association, who are carrying them on at the present day.

Encouraged by the success of the Summer School, classes were established in London in 1898 and subsequent years. In 1902 the Council arranged with the London School of Economics to co-operate in conducting courses for instruction on the subjects of the examination *Syllabus*; and these courses were carried on until 1919, when the London University School of Librarianship was established.

The North Western Branch of the Library Association instituted a Summer School of Technical Classes at Manchester in 1897, which was held with success till 1913 and resumed after the war, but was discontinued in 1921—the classes provided in Manchester under the Extra-Mural Department of the university taking their place.

In January, 1910, Miss Ethel S. Fegan was responsible for the starting of a library training class at Cheltenham Ladies' College. It was the first whole-time library school in England for resident students, and until the establishment of the London University School of Librarianship in 1919, was the only full-time center covering a long period of training. The school is still carried on usefully under the librarian, Miss Monica Cant, a former student, though the number of students is now more limited.

Aberystwyth Summer School.—A highly successful series of summer schools of library service was held at Aberystwyth during the years 1917-22 and 1925-28. They owe their inception to Mr. (afterward "Sir") John Ballinger, who induced the governing bodies of the University College and the National Library of Wales to take the matter up; and in conjunction with the Library Association's Education Committee a scheme of lectures was drawn up covering the subjects of the *Syllabus*, with the addition of Archives and Bookbinding. Sir John Ballinger enlisted the services of some of the most eminent lecturers in the Library Association, and students from all parts of the British Isles attended. Lecturers and students resided together at

Alexandra Hall, the women's hostel of the College, a most happy arrangement, beneficial alike to teacher and student. Owing to the fact that the classes were not self-supporting, Sir John Ballinger was obliged to discontinue them.

Much regret having been expressed at the discontinuance of the Aberystwyth summer schools, the Association arranged to hold a summer school at Birmingham in conjunction with the university in 1930. The students resided at Chancellor's Hall, and the school was open to non-members of the Association at an increased fee. Lectures were given by prominent librarians, and visits were paid to various libraries in the vicinity, as well as to works' libraries and local printing and bookbinding works. It is hoped that it will be possible to continue them.

Successful schools have been held under the auspices of the North Midland Branch of the Association, of the Scottish Library Association—in Edinburgh and in Glasgow in successive years—and at University College, Dublin, there has been established a School of Library Service. Classes are conducted at Glasgow, lectures on practical work in class given at Glasgow High School as continuation classes of Glasgow Education Authority. At Liverpool classes have been held under the auspices of the Technical Education Committee with the co-operation of the Liverpool Public Libraries Committee, while at Manchester similar classes have been conducted at the Municipal School of Technology.

University of London School of Librarianship.—The school was established in 1919 on a report formulated by a Joint Sub-Committee of the Library Association and the University of London. This report was submitted to the Carnegie United Kingdom Trustees with an application for a sufficient endowment for carrying it on. The Trustees granted an endowment for ten years, and the university is at present raising a fund for permanently endowing the school. The school is carried on under the management of a joint committee consisting of six representatives of the university and six representatives of the Library Association.

From the first the success of the school has been marked. Ninety-eight students were enrolled in the opening year, and the annual average attendance is over one hundred. The course of training for the diploma in librarianship is open: (a) to matriculated students of the university; (b) to non-matriculated students whose preliminary edu-

cation appears to the School of Librarianship Committee to be sufficient to enable them to take advantage of the course of training. It is desirable that candidates for admission should be graduates of the University of London or other approved university; non-graduates may be admitted if they have the matriculation or school-leaving certificate of the University of London, or any certificate accepted in lieu thereof.

JOHN MINTO

SIGNET LIBRARY
EDINBURGH, SCOTLAND

NATIONAL DEPARTMENTS IN SCANDINAVIAN LIBRARIES

MY HONORED countryman, Professor J. C. M. Hanson, in the *Library quarterly*¹ in a very sympathetic review of *Norvegica*, a jubilee volume on the fiftieth anniversary of the Norwegian department of the University Library of Oslo, gives rather a sceptical opinion on the advantages of the Scandinavian practice of dividing the books in national libraries into two main divisions, one to hold the books printed or published in the country itself and the second to include all foreign books. May I therefore be permitted to seize this opportunity to tell how this idea, so strange to American librarians, has originated and has been developed in the Northern countries of Europe?

The natural basis for this arrangement is the law which provides that every printer shall deposit one or more copies of every print in the national libraries. It cannot be termed a copyright law, because it has nothing to do with the protection of author privileges; it is rather a copy tax, whose original censorial or controlling purpose has now completely passed into oblivion. It is the protection of the national books themselves and the free admission to study them, which must now justify the existent obligatory deposit.

In Denmark we can trace the sources of such a legislation back to 1623, but only since 1697 has the duty been constantly in force, the number of copies varying from five to two. Since 1927 the printers have been obliged to send one copy to the Royal Library of Copenhagen, one to the State Library of Aarhus, and, on demand, a third copy to the University Library of Copenhagen. This last form ("requisition right") was introduced in the legislation the said year after the prototype of the Oxford and Cambridge libraries. It allows the library to select only books of value for its special purposes.

In Sweden the "archival copies" as they are termed here (because they formerly were sent to and distributed from the Royal Archives) originated from a royal ordinance of 1661. From 1866 they amount to four copies, viz., to the Royal Library of Stockholm, to the university

¹ III (1933), 322.

libraries of Uppsala and Lund, and to the Ministry of Justice; the latter afterward sends most of the copies to the Stadsbibliotek of Gothenburgh.

Finland, while united with Sweden, had a deposit copy from 1707 of all Swedish and Finnish books in the University Library in Åbo (from 1828 in Helsingfors). During the Russian rule, 1809-1918, it received a free copy of the Russian literature, too, which now forms a separate department. After the Independence, the press law of 1919 demands that five copies be delivered to the University Library and four other libraries of more local importance.

After the separation from Denmark in 1814, Norway had three deposit copies, viz., to the king, the Ministry of Justice, and the University Library of Christiania (Oslo). But in 1839 the liberal trade legislation did away with them all; in 1882 my predecessor, A. C. Drolsum, succeeded in re-introducing one deposit copy to the University Library, which is the national library of Norway.

The idea of segregating all the national books in a special library department arose in Denmark in the form of a proposal from the librarian of the Royal Library, J. H. Schlegel. It was materialized by his successor, the Icelander Jon Erichsen. A royal rescript of 1784 provided "that all printings, relating to the Danish states, were to be segregated from the other classes of books and shelved as a separate class, which should gradually be completed by purchases, including the adjoining parts of the Swedish literature." This "Nordiske Bibliotek" was installed in a new hall in the old library building and is the origin of the present "Danske Afdeling." It has catalogs of its own and a special staff under a head librarian. The purpose of the Danish department is to control and catalog all literature coming in under the deposit copy law, and this task has been carried out with great persistency and zeal. Only a few states, therefore, can boast of having preserved their own old literature with such completeness as Denmark.

In the Swedish Royal Library a similar arrangement was contemplated about the year 1800, but not brought into effect till forty years later, when two senior assistants on their own account began to take all the Swedish books and pamphlets out from the shelves and to place them together. This collection turned out to be very meager and poor, and a real representative national library was not brought together before the ingenious book-collector, G. E. Klemming, in 1865 was appointed chief librarian and began his scrupulous—and sometimes unscrupulous—filling of the gaps. Now the *Soenska tryckafdelningen* in

the Royal Library in Stockholm is the most brilliant and complete collection from Swedish presses, of books in the Swedish language printed in other countries, and of works relating to Sweden. The enforcing of deposit of the output of the Swedish presses, which perhaps is carried to an extent unequalled in any other country, can be studied in the annual reports of the library.

In much the same way the Swedish departments of the university libraries of Uppsala and Lund have originated and developed.

In bilingual Finland the linguistic and not the national element became the starting-point for the Fennica-collection of the University Library of Helsingfors, when the past librarian, F. W. Pipping, in his *otium* about 1845 began picking out all literature in the Finnish language and bringing it together. It was not before the Independence in 1918 that this collection was expanded to incorporate all the printing of the country.

In Norway a Norwegian department (Norske avdeling) in the University Library of Oslo (then Christiania) was erected in close connection with the re-introduction of the copy deposit law of 1882, but many years passed before all the older Norwegian prints were transferred and brought together on the shelves in the "Norske avdeling." This department publishes the official Norwegian book catalog (yearly from 1883 to 1920, later quinquennial) with support from the Booksellers' Association.

What is the reason for this Nordic predilection of separating the national literature from the main library system? I have tried to explain it in my historical introduction in *Norvegica*, and my friend Professor Hanson has conscientiously quoted the "defence"—as he calls it—in his review. It would be irrational for a library in a state with a world-language to try to separate domestic and foreign books, but a small nation with a language of its own has—perhaps as a sort of compensation for the handicaps of its linguistic situation—a stronger feeling of its duties toward its own idiom. It knows that very few books would be likely to find a refuge in a foreign library; it will have to take care of them itself. Perhaps the duty has been overemphasized. Positively, I know no country outside Scandinavia where the copy tax laws are so solicitous that no single broadside, no private wedding song, or new impression of a detective story shall escape eternity! In my opinion we are still collecting too much trash and rubbish in the national library departments. Perhaps this exaggeration may be due to an inferiority complex. But the idea of having the national litera-

ture in special departments and under special care is—as far as I can see—an expression of a sound national consciousness. That this arrangement makes it easier to control and check the printed material coming in under the deposit law, every librarian will understand, but of course some drawbacks must be taken into the bargain. In some libraries the national department has separate alphabetic and systematic catalogs, which is, of course, a real nuisance to the public. But these are only relics from the past, as are also having separate catalogs in book form for octavos, quartos, and folios. If the national departments are kept solely as practical arrangements for the interior work and kept in vivid co-operation with the other departments and under the same rules, the disadvantages can be held within certain limits and not be felt at all by the public. In any case, I do not believe that any Norse librarian will think of doing away with the existent national departments, even if he has to bow his head in humble acquiescence to the argument of that pitiless and outspoken logician, J. C. M. Hanson. God bless him!

WILHELM MUNTHE

UNIVERSITETSBIBLIOTEKET
OSLO, NORWAY

THE UNIVERSITY LIBRARY AND RESEARCH

At a recent international geological congress I met the director of the Dutch governmental bureau for the investigation of coal and fossil plants and asked him how he had managed to publish so many articles, books, and reviews during the last ten years. He told me he had eighteen assistants and technicians. My own scientific production is a mere fraction of what my colleague from Holland can do, since I have no assistants or technicians. There is no doubt that the rank and file of American university instructors do not enjoy the help of research assistants or technicians. Even men in leading academic positions have only a moderate amount of such help, as compared with European, especially German, colleagues.

Does this difference in personnel help permanently to condemn the American professor to a position of relative inferiority in research work? This question can perhaps be answered by a comparison with the American farmer. The latter has also much less help than a western European farmer, and yet he produces more per man than any other agriculturalist in the world. He does it through superior organization of work and through the use of machinery. The same could be true of the American research worker. What he lacks in assistants and technicians could, in a measure, be replaced by organization and machinery—both to be supplied by departments of bibliographic research in university libraries.

Every research worker constantly needs bibliographic information, some of which is in easy reach and some hard to obtain. Talent for bibliographic work is unevenly distributed among scientists and scholars. Most people assume that the bibliographic part of the preparation of a research report is very simple and merely a matter of routine. I believe such an opinion will never be found among those who have had to read and edit manuscript material for a scientific periodical. Many scientists do not know how to make the simplest bibliographic entries in an accurate and consistent way. Quite a few overlook important work bearing on their line of research. Only a few scientists have accumulated bibliographic information in a systematic and rational manner and are able to draw from such a reserve. Hardly anybody knows the multitude of bibliographic sources which are familiar

to the person particularly interested in such work, but inaccessible to the casual user of bibliographies.

The research worker is supposed to be familiar with the entire current literature of his subject and able to avail himself of all former publications dealing with his project. At least three or four major languages are involved and sometimes others as well. A topic may be well represented in English and German scientific literatures, but it is also necessary to watch the French, Italian, Spanish, Portuguese, Scandinavian, and Russian publications. Much appears nowadays in Polish or Czech, while the scientific publications of Yugo-Slavia, Roumania, Bulgaria, Greece, and Turkey may still be discounted. Fortunately, it has become a general custom to add an English or German summary to papers which appear in the less well-known tongues. Polish and Czech summaries are occasionally still in French, but the latter language is nowadays rather rarely used for international purposes as compared with English or German. There are various current bibliographies in which almost all periodical, serial, and book literature is recorded soon after publication. But only a trained bibliographer can lay his hands on all of them.

Still more complicated is the issue when topics of a difficult and rare kind are concerned—for instance, the natural color of flowers in the geologic past, or the bone diseases of dinosaurs, or the use of cats and dogs in English literature. Very few papers could have been published on any of these subjects and it might be fatal to omit a single one.

In all such dilemmas, including that of watching current literature, the research man can be greatly assisted by the library. In fact, the reference librarian is constantly called upon to answer difficult questions. But he could not be requested to work out a bibliography or give more than casual advice on the use of bibliographies. This would be the business of a bibliographical department. In such a division of the library all catalogs, reviewing journals, regular book lists, and any kind of a book which contains much bibliographical information could be assembled, or at least listed. The chief of this department, who should have equal rank with the other department heads of the library, would soon make himself indispensable to the faculty and the students, and his services would be claimed by a very large number of clients. He should have all the assistants which the library can afford to give him. Most important of all, he or she would have to be a genuine scientist or scholar and by no means a mere administrator or

library technician. How could the library command the services of such a person? Perhaps if he could have some time and encouragement for independent research work. In an earlier paper¹ I made a plea for the recognition of scholarship among library workers as an incentive to attract and hold young men and women of scholarly and scientific inclinations. Allowance for such accomplishments would counterbalance the present tendency to discourage the intellectual ambitions of library workers and to overemphasize administrative and technical ability.

The bibliographical service should not be monopolized exclusively by the department of bibliographical research. The latter could also be a clearing house for bibliographic research done by other members of the staff. In fact, every library worker should have a subject or topic in which he or she would be interested during free hours. As a rule library work rarely demands more than about forty hours per week and plenty of time is left for the ambitious scholar to follow his interests. If such efforts would receive a little more recognition by the library administration, the level of scholarship among library employees would rise considerably, and many persons would be attracted to this profession who are otherwise repelled by its often very monotonous routine duties. Library work is often little more inspiring than clerical work in the auditing department of a university.

There is too much of a gap between the library staff and the faculty of a university. The director of the library is always a full-fledged partner of the deans and professors in an academic institution, but the chiefs of the library departments and their subordinates are rarely accepted as equals by a faculty. If they would be invited to participate in the proceedings of scientific and scholarly departmental clubs, take part in the gatherings of the national learned societies, and frequently contribute to the journals, it would be different. Naturally it is not up to the faculties to raise the level of library workers, but the library administrations should make such things possible. There is no danger that too much time would be diverted to study and reading during library hours. A learned librarian is not necessarily inefficient in his services to the library. Such inefficiency is much more likely to be found in disgruntled and disappointed employees who once entered the library profession with high hopes of spending their lives in congenial cultured surroundings, with a certain degree of participation in

¹ Adolf C. Noé, "Our university libraries," *School and society*, X (July 19, 1919), 70-72.

the inspiring activities of a university, and soon finding themselves condemned to a deadly mechanical routine in which speed counts most.²

The bibliographer of a library would find enthusiastic collaborators not only among the members of the library staff but also in the faculty. There are always a few professors who are interested in bibliographic work. It may be a hobby for them, but it can be turned to good account. This bibliographic interest is seldom used for the benefit of a university. It is customary to appoint the heads of the university departments to chairs on the library boards and committees. These men are already overburdened with administrative duties and they do not always possess great familiarity with library problems and bibliographic matters beyond their own more or less restricted fields of research. They bring to their advisory posts a general knowledge of affairs, but rarely the minute information which a true bibliographer has accumulated in decades. The libraries would undoubtedly be the gainers if interest in library matters and not academic seniority would play a decisive rôle in the appointments to library committees and boards. The opinion that expert knowledge and administrative ability exclude each other seems to be prevailing but might just as well be put to a test from time to time. At least in matters of co-operation with the bibliographical department of libraries an opportunity might be given to faculty members who like to dabble in this line of work.

The department of bibliography should not be abused by burdening it with demands for made-to-order bibliographies. No serious research worker would leave it entirely to the library to supply him with complete reference lists for his work. But he could be guided and advised. More or less inaccessible information could be put at his disposal. Much time would be saved for the research man who is busy in his laboratory and who cannot easily drop his experiments or other investigations at a moment's notice when the necessity for additional information presents itself. He has no assistants whom he could send to the library, but a telephone call to the bibliographical department might inform him of references which he could not obtain by himself in a short time.

Every research worker has to focus his attention upon a comparatively narrow field of scientific endeavor. What lies outside of it he does not see until its importance forces itself upon him. With the

² Cf. W. W. Bishop, "University libraries," *Library quarterly*, 1 (July, 1931), 243-54.

assistance of a bibliographer all related fields could be covered much more easily. Lists of newly acquired books, titles of magazine articles in various fields could be circularized. All of this would demand that the chief of the bibliographical department should have a pretty good scientific background.

The above remarks refer to the immediate services of a bibliographical department to research men in the university. There is another very useful field in which this department might make a long-term service.

At present a university library is primarily organized to supply the necessary reference books for students and faculty. Current demands are always so large that funds are available only for books needed in teaching and research which are actually in progress. This means that great gaps exist in those branches of science which are not represented in the university curriculum nor in the combined research programs of the faculty. Besides, the initiative for the purchase of books rests with the chairmen of the departments and other members of the faculty. There are great differences between the book-purchasing activities of different persons and different departments. Some will hardly ever order anything, and others will get all the traffic will bear—sometimes in a not very judicious way. Great unevenness results in the distribution of library books over the various branches of human knowledge. As soon as a research man finds it necessary to enter a field which was not previously represented by any courses or faculty research, he finds few books if any in the university library and has to get them elsewhere, often from distant places. If a new subject is introduced into the university curriculum, there will be almost no books available until years have passed and a new departmental book collection has been assembled. That happens quite frequently because new subjects are constantly recognized in the universities, especially in medicine, engineering, and other rapidly moving subjects. Of the new fields which have been introduced into universities during the last three or four decades could be mentioned, among others, history of medicine, geophysics, aeronautics, radio, X-rays, ecology of plants and animals, micropaleontology, and petroleum engineering.

Some scientists rely largely upon their own private libraries and do not care whether the university library pays any attention to their subjects or not. They use their own books and allow their students to use and abuse them. If such a man leaves the university, his successor—who may not have a large private collection of books or does not

want to loan them to students—is in an embarrassing situation. His subject is represented in the library by a large gap.

It should be a very important duty of a bibliographical department to watch the growth of the library, to survey it occasionally, to see that book purchases are evenly distributed over the entire field of knowledge—of course with certain concessions to urgent needs. Above all it should put a check on unwise ordering by individuals and advise the librarians as well as the faculty.

Next to its obligation to the students stands the university's obligation to research. There has always been a tendency in the academic world to overemphasize teaching and administrative service. Both are essential but should not exclusively attract the main attention of ambitious young scientists. Anything which promotes research and enhances the position of productive scholarship in universities should be supported. If we compare the costs of a bibliographical department in a university library with the saving of time, the actual discovery of new information, the prevention of the loss or neglect of such information for the faculty and student body, and the promotion of respect for scientific accomplishment, few academic expenditures may appear more worth while.

A. C. Noé

UNIVERSITY OF CHICAGO

THE FOREST OF PENCILS

ADVENTURES IN CORPORATE ENTRY

MORE than twelve hundred years ago a Chinese emperor, known in history as Taitsung, issued a decree that men of ability should be sought out and brought to court from their retired homes and secret hiding places; they obeyed the imperial decree, and were formed into a body under the name of Wen-hio-kuan; this was the first literary academy of which there is record.

The Emperor Taitsung resolved to found a library that should surpass in extent and magnificence anything that had been known in the past. He was unable to imagine a more expeditious or satisfactory method of producing books than the slow process of transcription. For this purpose a host of pencils would be required, and Taitsung, in the interest of his library, made a fresh levy of learned men who were elegant scribes as well as able scholars. To these two groups the Emperor Huentsung, one of his successors, added another body of scholars, and, combining all three classes into one society, called it by the name of Hanlin, or "The Forest of Pencils." The Hanlin Yuan, known variously as Hanlin Academy, Imperial Academy, National Academy, or College of Literature, existed for twelve centuries, with but one suspension during a troubled period in the tenth century. Memoirs were published from 1644 to 1801. In 1900, during the Boxer rebellion, the library was burned, and in 1905 the academy itself ceased to exist.¹

In the centuries that followed the founding of Hanlin Yuan, "forests of pencils" sprang up and flourished in other lands; the shelves of our libraries attest the industry of these pencils in the imposing array of transactions of academies and societies. Here are treasures old and new, for records of thought and of discovery do not cease; but how shall they be made available to the investigator? Did the far-seeing Emperor Taitsung, when he summoned his "elegant scribes," envision a group of catalogers? At least he recognized the need of a corps of trained scholars in his library.

In the earlier days, libraries were for the select few; systems of

¹ The above statements are taken chiefly from "The Chinese; their education, philosophy, and letters," by W. A. P. Martin, D.D., LL.D., president of the Tungwen college, Peking, 1881, article 1: The Hanlin Yuan, or Imperial Academy (published originally in the *North American review*, July, 1874).

library economy were unnecessary, for the librarians themselves were the repositories of all information concerning their collections. Doubtless we have lost, to a large extent, a type of deep scholarship that cannot be replaced by our modern ways; but our task is to deal with conditions as they are, and to adapt our methods to our high-powered age, with lists and catalogs that can be quickly consulted. Catalogs are now indispensable.

Pioneers like Charles A. Cutter and Melvil Dewey laid the foundation for modern rules of cataloging and classification during those fruitful years between 1876 and 1900. It was in 1900, the year when the priceless Hanlin library in the Far East was burned, that a great library in the Western hemisphere, the Library of Congress, began a period of unparalleled expansion; the Catalog Division was placed under the direction of Mr. J. C. M. Hanson, whose task it was to adapt existing rules of cataloging to a large and rapidly growing collection and to add new rules as occasion should require. His success in this arduous undertaking gave a new impetus to the profession of cataloging; particularly did he clarify the rules for corporate entry, a subject more open to differences of opinion than, perhaps, any other. An understanding was reached with British librarians by which the rules were co-ordinated, with a few optional differences of usage, and the principles then laid down have been followed not only in the Library of Congress, but throughout the United States, in Great Britain, in the reorganized Vatican Library (with modifications), and in the *Union list of serials*.

The general principle of these rules for corporate entry is to enter societies under their latest name, and institutions under the place where they are located, with such exceptions as may seem necessary or desirable. The rule is clear-cut and simple; the working out of this, or of any other plan adopted, is complex, owing to the variations in the bodies themselves, or to the ambiguity of terms such as "convention," "institute," "museum," and like names. The word "convention" may mean an ordinary conference or meeting of persons interested in a common subject; or it may have a political flavor, when it is the instrument of a party organization; or it may mean an agreement between sovereign states. The word "institute," which originally meant a society, has become, by usage, a term for institutions as well, so that it is impossible to tell from a name bearing that word whether the body is an association or an establishment; each case has to be decided in accordance with the actual definition of its aims and purposes.

The characteristics of corporate entities are as varied as those of the individuals who compose them. The tempo of the period in which they came into being is sometimes reflected in their very names, as in "The Weekly Society of Gentlemen," a designation suggesting spacious times, unhurried leisure, and courtly amenities far removed from the present management associations and efficiency societies. There is record of an esoteric society in Grenoble, the "Société des Trois Bibliophiles Dauphinois," whose membership was actually only two; unfortunately, after publishing three volumes, "les deux associés se brouillèrent, et l'association se rompit."

Merely to list the publications of an organization is an interesting mental exercise, for their idiosyncrasies are of infinite variety. It may take hours of research to establish the truth of the distilled statement "No more published" (it takes 150 pounds of rose-leaves to yield less than an ounce of attar of rose!). But to follow step by step the history of an organization from its beginning becomes high adventure. An illustration of this may be cited in the case of two pamphlets, one bearing the name "Association internationale africaine," the other, "Commission internationale de l'Association africaine." The pursuit of information concerning this association led through encyclopedic articles and substantial volumes, through involved sentences, false trails and wordy jungles, to emerge finally in the Congo Free State. The following explanatory statement, condensed from many sources, was prepared for the catalog and necessary references were made.

International association for the exploration and civilisation of Central Africa.

This association, known also under the shorter form of name "International African association," was organized as the result of the Conférence géographique de Bruxelles, 1876, called by Leopold II, king of the Belgians. National committees were formed in many countries, but the interests of the association were centered in Belgium. Several expeditions were sent out to Africa with little result; the national committees later disappeared, and the work of the International African association was merged into that of the Committee for studying the Upper Congo. That committee, formed Nov. 25, 1878, soon afterwards took the name of International association of the Congo; its explorations were carried on until 1884 under the leadership of the explorer Stanley, acting in the service of the King of the Belgians.

The International association of the Congo gradually assumed the rights of an independent state, and was so recognized by the United

States of America on April 22, 1884; other countries followed. At a conference called by invitation of the German government through its chancellor, Bismarck, and known as the Berlin conference, 1884-1885, the association was recognized as a sovereign state by most of the participating powers, and on May 29, 1885, King Leopold proclaimed the existence of the Independent State of the Congo (known also as Congo, or Kongo, Free State).

The institutions represented in the "Jahrbuch der hamburgischen wissenschaftlichen anstalten" with its complicated Beilagen, converged at length, by devious paths, in the University of Hamburg; the results of this research are set forth in an information card, as follows:

Hamburg. Universität.

Founded 1919, combining under one system (1) the various museums, institutions and laboratories which had existed first in affiliation with the Akademisches und real-gymnasium (founded 1610; dissolved 1883) and which had been transferred in 1883 to the supervision of the Hamburgische oberschulbehörde, Sektion für die wissenschaftlichen anstalten; (2) the Kolonialinstitut (founded 1908) and the seminars connected with its professorships.

As constituted at present the university comprises the following institutions and seminars (*cf.* Minerva, 1928)

Wissenschaftliche anstalten:

Staats- und universitätsbibliothek (1529)

Museum für völkerkunde (originated about 1850; "staatliches museum" since 1878)

(52 other institutes, seminars, etc. follow)

In the Library of Congress catalogue the "wissenschaftliche anstalten" are entered directly under Hamburg, *e. g.* Hamburg. Museum für völkerkunde; the "seminare und institute" are entered as subdivisions of the university, *e. g.* Hamburg. Universität. Seminar für öffentliches recht und staatslehre.

The changes of name of the above institutions and seminars are noted on the information cards accompanying the entries for those institutions.

It was necessary to make 109 main entries for this series, requiring 406 manuscript cards containing over 13,000 words.

Museums present problems in cataloging, for their beginnings are often obscure and their evolution is difficult to trace. Most frequently they are found to have originated in the private collection of some monarch, or private individual, or organization. The history of the National Museum of Ireland is typical of the changing conditions that

influence the development of such institutions: this museum was established by the Royal Dublin Society; was transferred to the government; was later taken over by the Department of Agriculture and Technical Instruction for Ireland; and still later was transferred to the Department of Education of the Irish Free State. It is clear that it is not only desirable but necessary to prepare a statement for the catalog explanatory of these changes, for the varying titles are reflected in the publications to be cataloged. The information is not found in any one place, but in many volumes widely scattered: the Irish statutes (32 Geo. III. c. 14) are consulted, to find the act creating the Cabinet of Mineralogy in 1792; the publications of the Royal Dublin Society; the reports of the Department of Science and Art of Great Britain; books on the history of museums; and other sources of information. After assembling the items, the salient points are stated on an information card, to precede the entries in the catalog for the publications of the museum.

Dublin. National museum of Ireland.

The museum had its origin in the collections of the Royal Dublin society (founded 1731 as Dublin society). In 1792 the society was authorized by an act of the Irish Parliament to purchase a "Cabinet of mineralogy," a collection made by Nathanael Gottfried Leske (born 1757, died 1786) and known as the Leskean cabinet or Leskean museum; it was later called Natural history museum, and as early as 1831 was referred to in the reports as a national museum. In 1877 it was transferred to the government by the "Dublin Science and art museum act"; in 1900 it was taken over by the Department of agriculture and technical instruction for Ireland; in 1922, under the treaty between Ireland and Great Britain, it became a purely Irish institution, supported by Irish Free State funds; in 1924 the administration of the museum was handed over by the Department of agriculture to the Department of education.

In addition to the separate publications of the museum, notices and reports may be found in the publications of the Royal Dublin society, in reports of the Department of science and art of Great Britain, and in reports of the government departments of Ireland with which the museum has been connected.

A question arises in connection with certain reports prepared by the Board of Visitors of the National Museum of Science and Art and the Botanic Gardens, Dublin. Who are these visitors? by whom appointed? Investigation shows that the Board was constituted in 1881: four members appointed by the state, three by the Royal Irish

Academy, and five by the Royal Dublin Society; the reports are made to the Department of Agriculture and Technical Instruction, Education, etc., under which the museum at the time functions. How shall this body be entered in the catalog? It is evident that it may not properly be made a subdivision under any one of the organizations represented, nor under any one of the departments with which the museum has been nominally connected; the choice left is to enter it under its own name. Most searchers would probably look under the heading adopted for the museum; an added entry is therefore made under that heading and under the heading for the gardens. The constitution and multiple supervisory functions of the Board are briefly stated on an information card which precedes entries under its name in the catalog.

Board of visitors of the National museum and the Botanic gardens, Dublin.

In the "Dublin Science and art museum act" of 1877, when the Dublin museum was transferred from the Royal Dublin society to the government, provision was made for a Board of visitors to aid in the administration of the museum and of the Botanic gardens.

By the formal agreement of March 1, 1881, between the Department of science and art (Gt. Brit.), the Commissioners of public works in Ireland, and the Royal Dublin society, the board was to consist of twelve members: four members appointed by the state; three, by the Royal Irish academy; five, by the Royal Dublin society.

The first meeting of the board was held March 4, 1881.

Without knowledge of this history the cataloger can make only fragmentary, disjointed, and confusing records of the publications, and the searcher will lose much time and go unsatisfied. The time spent by one cataloger in establishing this history and making an intelligible, complete record of the publications will save the cost of the search over and over again in saving the time of every user of the catalog thereafter.

One fact must be faced: the catalog is not, and can never be, static. It would be a satisfaction to feel, after having spent untiring effort to make an entry full and accurate, that it would remain a permanent, completed record, but in reality it can only serve as a foundation. In this changing world, terminology is undergoing constant alteration; a name that was fitting when given to an organization becomes, in time, no longer appropriate; a subject heading used at one period as the inevitable descriptive word becomes obsolete as the subject reaches a

fuller development. The names of places change, territorial boundaries are mutable. Change is the law of the universe. In the words of Heraclitus, "Everything flows." *Handwritten: 1700-1800*

In the case of the city long known as Klausenburg, the following variations appear:

Kolozsvár, Transylvania.

In 1898 Kolozsvár was by decree declared to be the official form of the name of the capital of Transylvania.

The variant forms in use are noted as follows, in a documented history and discussion of the name Kolozsvár by Sándor Márki (in Magyar földrajzi társaság, Budapest. Földrajzi közlemények, 32, 1904).

1. Castrum Clus (1213-1291) only in this form.
2. Kluzsvár (1275-1468) with 11 variations.
3. Kuluzsvár (1280-1364) with 4 variations.
4. Koluzsvár (1322-1490) with 7 variations.
5. Klusenbourg (1348-1438) with 2 variations.
6. Kaluzsvár (1365-1400) with 2 variations.
7. Kolozsvár (1366-1918) with 13 variations.
8. Klozsvár (1371-1377) with 2 variations.
9. Klausenburg (1453-1898) with 8 variations.
10. Claudiopolis (1559-1902) unchanged.

On December 1, 1918, Transylvania became Rumanian territory and Cluj took the place of Kolozsvár as the official name.

Granted that many of these changes are unavoidable, there are certain groups that appear to favor change just for the sake of variety, as may be observed from a statement made by a joyous editor who uses a different title for each issue of his publication. He says that he has always disliked the colorless title of *Publications*; organizations like mathematical societies and plumbers' unions very properly issue *Publications*, but he likes folk lore because it has color and flavor and represents humanity, and likes to read it under a title more suggestive of character than *Publications*, however handy some such term may be for keeping record of the years and year books straight. He feels it is not well for people, especially for academicians, to take themselves too seriously. We sympathize with his attitude, and would not curb his exuberance, even if to make record of these kaleidoscopic changes were to prolong our work by many hours. Nevertheless, such changes in the aggregate place a heavy burden upon the cataloger and need to be taken into consideration in estimates of the cost of cataloging.

Catalogers are not only transcribers, they are seekers after truth. It is argued by many, perhaps by the majority, that all that is needed for a catalog entry is the author's name as it appears on the title-page, a brief title, synthetic collation, and size—in short, a mechanized process for quantity production. Experience has shown that such cataloging is the most expensive that can be devised, for it leads to endless confusion. It is actually cheaper in terms of money to take time to make a full and complete entry than to dispatch a hasty, ill-considered one, for there is an inevitable day of reckoning, when mistakes are discovered and the work has to be done over. Thousands and thousands of catalogs and bibliographies have been made, and the bulk of them soon thrown aside and forgotten because they were found wanting. But the few that are painstakingly accurate remain and are treasured, and successors do not make them over—they begin where earlier ones leave off. Printed catalog cards made for distribution to other libraries to save duplication of work become an economy only when they are complete and correct in every detail; time spent in making simple, unverified entries, taking facts for granted, is time and money thrown away.

To the uninitiated the profession of cataloging may appear dry and uninteresting; in reality there is no profession which affords so great an opportunity to look into the mirror of life. The revelation is absorbing and full of interesting surprises: a glimpse of beauty in some forgotten volume, a flash of humor from some dusty shelf. The voices of the past are audible, their joy and pain, their triumph and defeat, their ambition and resignation, their eager and unending struggle to solve the mystery of life.

And from a hidden page there comes an echo from that far Cathay where flourished Hanlin Yuan, as the Emperor Ch'ien Lung reflects in an inspired ode, "Happy am I to enter this garden of letters."

HARRIET WHEELER PIERSON

LIBRARY OF CONGRESS

LETTER TO MR. HANSON

As of March 13, 1934

MY DEAR HANSON:

They tell me that you are reaching seventy, and that congratulations are in order. I don't see why: *You* aren't responsible for it. Nor is it in itself a remarkable achievement. I've done it myself and had no pride in it. Many other men have done it and been none the better for it.

There are, however, satisfactions which *some* men attaining seventy are entitled to. One is, to find themselves still unsated. Another is, to know that the seven decades have built up in them a solid foundation: solid in character, in attainments, and in service performed; and that it finds them with zest and vigor for the decades still to come.

You are in that happy category; and can look out upon a world eager still to take profit of you. All of us who know you, and have already taken profit, share in the rejoicing.

With very hearty wishes, believe me

Ever cordially yours,



Dr. James Christian Meinich Hanson

COPYRIGHT AND LIBRARIANS

TO WHAT extent are librarians interested in legislation for the protection of literary property and under what circumstances are they entitled to make direct appeal to Congress with regard to copyright legislation?

Librarians are most directly concerned with supplying books for reading and study, and they have a very direct interest in the facility accorded to libraries for obtaining books for the use of their patrons and are equally interested in whatever may be proposed that is likely to prove an obstacle in the way of obtaining such books. Copyright legislation will certainly interest them, therefore, so far as it has to do with the importation or prohibition of importation of foreign books.

COPYRIGHT ACT OF 1891

When the United States determined in 1891 to put an end to the century-old practice within our national borders of the piracy of books of foreign authorship and enacted copyright protection in the United States for books by alien writers, Congress burdened this grant of legal security in our country for their works with the obligation to reprint—to manufacture in entirety—all such books in the United States when seeking to circulate them here safeguarded against misappropriation. In order to make this requirement of domestic manufacture of the fullest benefit for American printers and publishers, it was proposed to prohibit the importation of all copies of the original foreign editions. This arbitrary exclusion of copies of works by foreign authors printed abroad by their own authorization was opposed by Senator John Sherman, which led to some compromise, and the expedient was adopted of transferring to the Chace copyright bill paragraphs 512-16 inclusive of the free list of the Tariff Act of 1890, in order to enumerate the permitted exceptions to the prohibition of importation of books stipulated for in that bill.

Paragraph 512 of the Tariff Act permitted free importation of books, etc., more than twenty years old; 513, "books and pamphlets printed exclusively in languages other than English," also "books and music in raised print, used exclusively by the blind"; 514, books for the use of the United States and the Library of Congress; 515, books imported for certain designated societies and libraries; and 516, "books

or libraries of persons arriving from foreign countries." Permitted importation, as specified in paragraphs 512, 513, and 514 as above, was included in the Copyright Act of 1909, in every subsequent general-revision copyright bill, and in the later tariff acts. But the attempted mutations of paragraphs 515 and 516 have been many and various, as will be explained later.

THE PROHIBITION OF IMPORTATION OF BOOKS

Prior to 1891, only copies of unauthorized (pirated) books were prohibited importation; honest entry of the original authorized book was unhindered. But having in that year announced the boon of legal protection in this country for the alien author's book, we proceeded to deny to him direct access to the United States market for it, insisting that he should approach our reading public only through the intervention of an American printer and publisher, and further proposed the exclusion of all foreign copies of his book. When this last was first proposed, a distinguished American publisher declared that it was tantamount to adding a good foreign book to the three things theretofore forbidden admission by law to the United States, namely, lottery tickets, counterfeit money, and Chinese.

It should be borne in mind that it is not opposition to the shutting-out of pirated books, but what is opposed is the automatic exclusion of authorized books—preventing American book-lovers and librarians from obtaining a copy of an English author's book in the form in which that author has seen fit to have his book printed and bound in his own country. This persistently urged prohibition of book importation is in support of the frankly advocated "preservation of the market for foreign books in the United States for the American publisher." It is concerned with obtaining full profits for such American printers and publishers as produce books by British authors "from type set within the limits of the United States."

WHAT AMERICAN PUBLISHERS HAVE DEMANDED

Librarians should have a clear conception of just what the American publishers desire and how their demands differ from importation provisions admittedly within the province of copyright legislation.

a) If a British author who has been accorded copyright protection for his book in the United States arranges for the publication of a reprint of his book in the United States, he can stipulate that copies of the American edition are not to be allowed to compete with his book in

his home market and can provide for their exclusion from England. That is exactly what the English author does when he contracts for the republication of his book in the well-known series of Tauchnitz reprints. These are German editions printed upon the understanding that copies are not permitted importation into England. It has been repeatedly contended that the Tauchnitz books illustrate exactly what the American publishers were asking for. But it does nothing of the kind. To parallel the proposals of the American publishers would require the legal, automatic exclusion from Germany of copies of the original editions of the English books reprinted by Tauchnitz. But the authorized publication of the Tauchnitz reprint (or any other authorized republication) of English books in Germany in no way interferes with obtaining from England at any time and without formalities of any kind copies of the original British book for use or for sale either in Germany or in any other Continental country. In the stenographic report of the copyright hearing in 1925 on the bill H.R. 11258, there were printed two letters from Baron Tauchnitz himself, declaring that the publication of American books in his series of reprints "does not prevent the importation into Germany of the original American editions," and that the importation into Germany of the originals of either American or British books which had been reprinted in his series "is always allowable and does not require the consent of the German publisher of such books."

b) If the American author of a copyrighted book permits a reprint of that book to be published in England, he can stipulate in his contract for republication that copies of the English edition shall not be sent into the United States to compete with the sale of copies of the original edition. Our existing law explicitly provides that the importation now permitted for individual use of any work published abroad "with the authorization of the author or copyright proprietor" shall *not* extend "to a foreign reprint of a book by an American author copyrighted in the United States."

c) An American publisher, having obtained authorization to reprint an English author's book in the United States, wants to secure the automatic exclusion by specific provisions of law of copies of the English author's original book. It is this that he has endeavored to obtain since the Copyright Act of July 1, 1891, and he has steadily contended that any importation of copies of the original English books should, at least, only be made with his direct consent. No corresponding proposal is found in the copyright laws of any other country, so

far as I have obtained information. At a hearing before the Committee on Patents of the House of Representatives in April, 1930, a statement by the Department of State was filed with the committee and printed with the stenographic report of the hearings. After quoting the importation provisions of the bill under discussion, the statement said:

This proposed provision of law contains two distinct elements, both of which are designed for the protection of American manufacturing industry; are consequently purely economic provisions and are without necessary connection with copyright or with a statute governing copyright.

GENERAL REVISION OF OUR COPYRIGHT LEGISLATION

When the Register of Copyrights reported on the need for amended copyright legislation, Senator Kittredge, who was then chairman of the Senate Committee on Patents, announced the intention of that committee to bring in a bill for that purpose, and he suggested that meantime the Librarian of Congress might confer with people who were interested. This offered an opportunity for the Register to prepare a great deal of material for consideration at the proposed conferences and also to prepare a preliminary draft of a copyright bill which was discussed at the conferences held, two in New York City—May 31–June 2, and November 1–4, 1905—and a third conference held in Washington from March 13 to 16, 1906.

There was initial agreement that in such a bill the obligatory American manufacture of books claiming copyright should be retained, together with the prohibition of importation of books not so manufactured. But certain exceptions to such prohibition were proposed in the case of "any copyright book printed abroad with the authorization of its author." Whenever a translation into English of a foreign book was published and copyrighted in the United States, the importation of the original book was to be permitted, but copies of the translation prohibited; and whenever an American author had authorized the publication of a foreign reprint of his book, he could stipulate that copies of such a reprint should carry a notice that they could not be sent into the United States without specific authorization.

Ad interim copyright for English books was proposed for a term of six or twelve months with permitted importation of copies of the original book during this period of protection. But upon the intervention of the American Publishers' Copyright League the term was reduced to thirty days, and importation was prohibited. The publishers were

also responsible for limiting permitted importation to books "printed in the country of origin"; for reducing the two copies then allowed by law to one copy; and that such permitted importation was not to extend to a foreign reprint of a copyrighted book by an American author "unless copies of the American edition could not be supplied by the American publisher."

At the third copyright conference, held in the Library of Congress, March 13-16, 1906, there was formulated and adopted "A Bill to amend and consolidate the acts respecting copyright," which was introduced in both houses on May 31, 1906 (S. 6330; H.R. 19853, of the Fifty-ninth Congress, first session). That official bill contained the same requirement of American manufacture of books and proposed the exclusion of any copies not so produced. However, it excepted from the prohibition of importation foreign-language books during the proposed two-year ad interim term of protection for such books and foreign newspapers and magazines not containing unauthorized copyright matter; included the free-list items of the Copyright Act of 1891; and permitted the importation of books forming "parts of libraries or collections purchased *en bloc* for the use of designated societies and libraries."

That original copyright bill of May 31, 1906, was followed during a period of nearly three years by a series of more than twenty separate copyright bills in several of which modified importation provisions were included—all attempting to maintain in some form the American publishers' control of the importation of books. Mr. Washburn, of Massachusetts, in his bill of January 28, 1909, incorporated an elaborate formula of more than one hundred and sixty words, designed to compel such importation to be made through the American reprinter of the foreign book.

Three joint copyright hearings before the committees on patents of the Senate and House of Representatives were held in the Library of Congress on June 6-9, 1906; December 7-11, 1906; and March 26-28, 1908. At these hearings the following librarians protested against the restrictions upon importation which were proposed: Arthur E. Bostwick, William P. Cutter, Frank P. Hill, Bernard C. Steiner, and Hiller C. Wellman. Finally, Mr. Currier, chairman of the House Committee on Patents, had the courage, in his bill of May 26, 1908, to eliminate the requirement of permission from the American publisher for importation by individuals and libraries, and the importation provisions took the form now found in our present law of July 1, 1909.

After an interval of fourteen years, in 1924 there was begun a new effort to secure the general revision of our copyright legislation which has been continued up to the present time. In February of that year a private proposal for a copyright measure appeared in New York and was introduced as an official bill in the House of Representatives on March 24, 1924, by Frederick William Dallinger (H.R. 8177, Sixty-eighth Congress, first session) and was reintroduced without serious changes on May 9, 1924, as H.R. 9137.

In that bill it was provided that the original English book which had been reprinted in the United States could be imported by libraries and individuals directly only

provided the publisher of the American edition of such book (if any) has, within ten days after written demand made by registered mail, declined or neglected to supply the copy demanded at no greater price than the price of a copy of said work if purchased abroad, plus the cost of delivery to the prospective purchaser.

The stipulation that the permitted importation proposed should not extend to "a foreign reprint of a book by an American author" was eliminated.

Later on in 1924 the Council of the Authors' League of America requested the Register of Copyrights to draft a bill for the general revision of the copyright laws of the United States. It was completed on December 1, 1924; was submitted in person to the Authors' League at a meeting held in New York City, was discussed and approved by the League, and was introduced in the House of Representatives on January 5, 1925, by the Honorable Randolph Perkins as H.R. 11258 of the Sixty-eighth Congress, first session. It was reintroduced by Mr. Perkins, without changes, on December 17, 1925 (H.R. 5841). Meantime the bill had been presented to the Senate by the Honorable Richard P. Ernst on February 17, 1925 (S. 4355).

In the Register's bill the typesetting clauses were entirely eliminated as having no place in a copyright measure, and the importation stipulations were abrogated except the prohibition of pirated books. The importation of copies of authorized foreign reprints of works by American authors or by alien authors domiciled or resident in the United States were only barred when agreements authorizing the publication of such reprints should stipulate that copies were not to be brought into the United States. Foreign newspapers and magazines were permitted importation unless they contained copyright matter reprinted without authorization.

Public hearings on that bill (H.R. 11258) extended through four sessions held in Washington on January 22 and February 3, 10, and 24, 1925. At the first of these conferences Dr. M. L. Raney addressed the committee at length as the representative of the American Library Association, declaring also that the position explained was that endorsed by thirteen other national educational associations, including the American Association for the Advancement of Science. The full list of these associations was printed in the *Report* of the hearings. Dr. Raney's arguments were cogent and effective. He exhibited a knowledge of copyright such as is possessed by very few other librarians, if any, and a clear conception of the implications of the publishers' contentions with respect to the prohibition of importation of books.

Following the hearings upon the Perkins bill there was introduced in the House of Representatives on March 17, 1926, a compromise bill by the Honorable Albert B. Vestal (H.R. 10434, Sixty-ninth Congress, first session) containing a new importation formula prohibiting works by British authors when published and manufactured in the United States "under assignments registered in the Copyright Office covering stated rights for the United States: during the period in which any edition of American manufacture is published and copies of such American edition sufficient to supply customers are in the possession of the publisher."

As a special concession it was proposed that the prohibition should not apply to "secondhand" copies of an English book, meaning, no doubt, used copies.

According to H.R. 10434, direct importation was to be permitted by individuals and libraries or societies, provided the proprietor of the United States copyright of the foreign book had within ten days after written demand declined or neglected to agree to supply the copy demanded. Also provided search disclosed that no registration and deposit of copies of the American edition had been made. The copyright proprietor (the American publisher) was authorized to import copies of the English book to supply such demands.

The next Vestal bill (H.R. 8912), introduced on January 9, 1928, contained the same importation provisions as H.R. 10434 and was followed on December 9, 1928, by the Vestal bill H.R. 6990, containing identical provisions. On that bill public hearings were held on April 3, 4, and 11, 1930. Unfortunately, Dr. Raney was not heard at that conference. The librarian representing the American Library Association

criticized¹ the procedure proposed in the bill, declaring that it would mean a duplication of every order. Librarians would first have to apply to the publisher and then if he delayed, or if he said he could not supply the books, they would have to order abroad, contending that the bill "was not a workable measure as it was written."

Thereupon, however, he explained that he had attended a conference at which was "ironed out practically all the points of difference." The stipulations which he had criticized would still remain to hamper the individual bookbuyer, "but from the standpoint of the American Library Association, I do not think we can interest ourselves in that."

On May 22, 1930, Mr. Vestal brought forward a new bill (H.R. 12549, Seventy-first Congress, second session). In that bill the manufacturing stipulations were drastically extended. They were no longer confined to books, as in the law now in force, but made to apply to "any copyright material created by a citizen of the United States which shall be distributed in the United States in book, pamphlet, map or sheet form," whether printed from type set, or "produced by lithographic, mimeographic, photogravure, or photo-engraving, or any other kindred process, or any process of reproduction *now or hereafter devised*." That bill also proposed "that the printing or other reproduction of the text, and the binding of the said book or pamphlet, shall be performed within the limits of the United States or its dependencies," and "said requirements shall extend also to any copyright illustrations, maps or charts within any book or pamphlet, or in sheet form."

In H.R. 12549 the provisions concerning importation in quantity remained as in the bill H.R. 6990, while copies of authorized books could be bought

when imported, not more than one copy of any such work on any one invoice, for use and not for sale or hire, by and for any free public library or branch thereof, any privately owned or endowed library open to free use by the public or by scholars, or any school, college, society, or institution organized and conducted in good faith for educational, literary, philosophical, scientific, or religious purposes, or for the encouragement of the fine arts, and not for profit.

¹ General revision of the copyright law. *Hearings before the Committee on Patents, House of Representatives, Seventy-first Congress, Second Session, on H.R. 6990 . . . April 3, 4, and 11* (Washington, 1930), pp. 100-102.

To the previous repeated provisions as to books for the blind, for the United States, foreign-language books, and foreign newspapers, there was added permission to import motion pictures and motion-picture photoplays, and the sapient amendment already referred to, limiting personal importation to *five* books at any one time.

No hearings were held on H.R. 12549. It passed the House on January 13, 1931, and the House Act was taken up by the Senate Committee on Patents in a public hearing on January 28 and 29, 1931. Fortunately, Dr. Raney again appeared before the committee, speaking for the University of Chicago, the American Library Institute, and for twenty other national organizations, including the American Association for the Advancement of Science, the American Anthropological Association, the American Chemical Society, the American Council of Learned Societies, the American Council on Education, the American Historical Association, the American Philological Society, the American Physical Society, the American Political Science Association, the Society of Church History, the American Sociological Society, the Archaeological Institute of America, the Association of American Colleges, the Association of American Geographers, the Association of Urban Universities, the Geological Society of America, the Linguistic Society of America, the Modern Language Association of America, the National Education Association, and the Society of Biblical Literature and Exegesis.

All of these organizations were recorded in opposition to the restrictions proposed on the privileges granted by our present copyright law with respect to the importation of books. The same attitude of opposition to the proposals of the bill which would hamper the scholar and student who is at present permitted to import directly a single copy of a foreign author's book for his own use was taken by Mr. H. H. B. Meyer, of the Library of Congress; Dr. J. H. MacCracken, of Washington, the former Register of Copyrights; and Professor J. G. Machen, of the Westminster Theological Seminary of Philadelphia. Only the representative of the American Library Association felt called upon to defend the restrictions on importation proposed, so earnestly objected to by the above-listed representatives of the interests of students and book-lovers. He declared:

It has been my experience that very few individual scholars import directly now. . . . Under the terms of this bill, instead of going to his agent he would go through the publisher. I can not see why it would be an imposition upon a

scholar, if he can import, to go through a publisher rather than through an agent.²

The clever proponents of that proposed copyright legislation managed to secure widespread support of the bill H.R. 12549, upon the ground that only by its prompt enactment could the United States enter the International Copyright Union by adherence to the Copyright Convention of Berlin of 1908 instead of adherence to the revised and improved Convention of 1928. The bill also proposed restrictions upon the importation privileges of libraries and more serious restrictions upon the importation of books by individuals. The American Library Association was widely advertised as approving that bill without reservations, notwithstanding the fact that it was objectionable to all real friends of copyright advancement by reason of its detrimental, unjust, and unpractical provisions.

After the hearing by the Senate Committee on Patents on House Act H.R. 12549, that committee reported on February 23, 1931, a text of the Act with a considerable number of amendments, but with no changes in the importation provisions. Fortunately for copyright reform there was failure to secure its passage by the Senate. On December 9, 1931, a new bill (S. 176) was presented by Senator Felix Herbert, at that time chairman of the Committee on Patents, which was referred to that committee but was not publicly discussed, nor was it reported. It brought to a close Senate activities so far as the general revision of the copyright legislation is concerned.

On December 8, 1931, Mr. Vestal reintroduced H.R. 12549 in the Seventy-second Congress, first session, as H.R. 139, without any change in the importation provisions. His greatly regretted death brought to a close with that bill his long and loyal service in behalf of copyright betterment and resulted in a change in the chairmanship of the Committee on Patents of the House and the beginning of a new chapter in the long-continued struggle for general revision of our copyright legislation.

Dr. William I. Sirovich, the new chairman of the House Committee on Patents, began his copyright activities by holding a series of public hearings on the general subject of copyright before presenting any bill for discussion. There were nine sessions held in February and five in March, 1932. At these hearings Dr. Raney made a strong protest against any curtailment of the present importation privileges, and he

² *General revision of the copyright law. Hearings before the Committee on Patents, United States Senate, Seventy-first Congress, Third Session on H.R. 12549 . . . January 28 and 29 (Washington, 1931), pp. 206-7.*

was supported by Dr. Charles B. Mann, Professor J. Gresham Machen, and Thorvald Solberg.

Dr. Sirovich's first copyright bill (H.R. 10364) was introduced in the House on March 10, 1932. It was an entirely new draft, condensed and otherwise improved. The importation provisions were re-worded under the new heading "Impounding" and declared that importation in violation of contractual rights might lead to forfeiture of the books imported. The privilege of free library importation was left as in the present copyright law, except that libraries already forbidden to *sell* imported books were now also forbidden to *hire* them to library readers.

But the individual book-buyer was to be denied his present privilege to order directly from abroad the single copy of the English book granted him by the copyright law now in force and be compelled to order it from the "owner of the license for exclusive sales in the United States" of the book which he had been authorized to reprint. If the American assignee or licensee within ten days had declined or neglected to agree to fill the order, then our scholar was to be permitted to order the book desired directly from England.

The bill H.R. 10364 eliminated the stupid proposal that a person arriving in the United States from abroad should be allowed to bring only five books into this country with his personal baggage and substituted a provision to permit "the importation of not more than one copy of each such work or set at any one time which form a part of the personal baggage of persons arriving from a foreign country and which are not intended for sale or hire."

H.R. 10364 was followed at brief intervals during March, May, and June, 1932, by five other Sirovich copyright bills, in which, however, no changes appeared in the provisions relating to the importation of books. Upon one of these bills (H.R. 10976) public hearings were held by the House Committee on Patents on March 21, 24, and 25, 1932. At this conference protests were made against some proposed restrictions on the importation rights of book-buyers by Dr. George S. MacLean, Dr. John B. MacCracken, Dr. Henry Gratton Doyle, of the George Washington University, and by Thorvald Solberg. Dr. Sirovich submitted reports on two of these bills but failed to secure any discussion of them by the House of Representatives.

THE PRESENT COPYRIGHT SITUATION

There is little probability that a bill for the general revision of the copyright legislation can be enacted at the present session of congress. But if friends of copyright are willing to concentrate their efforts upon

securing the one great advance now possible, namely, the entry of the United States into the Copyright Union, it is believed that this very important step forward may be accomplished.

The procedure suggested is the enactment of a short and simple bill proposing the adherence of the United States to the Copyright Convention of Rome of 1928, with only such amendment of existing law as is necessary to meet the requirements of the articles of that Convention. A bill for this purpose was introduced in the House on May 31, 1933, by the Honorable Robert Luce, of Massachusetts (H.R. 5853), and referred to the Committee on Patents, and the same bill was presented in the Senate on June 10, 1933, by the Honorable Bronson Cutting, and referred to the Committee on Foreign Relations (S. 1928).

It is a reasonable hope that if public expression of such a desire is brought to the attention of the President he may be willing to take the necessary official action. When the Vestal bill was under discussion in Congress, President Hoover referred to the possible entry of the United States into the Copyright Union in his annual message to Congress and sent the Berne Copyright Convention to the Senate, and Senator Borah, then chairman of the Committee on Foreign Relations, announced that that Committee was prepared, upon enactment of the necessary copyright legislation, to report the convention favorably and recommend the Senate to approve adherence to it.

RESOLUTIONS ADOPTED AT LIBRARY CONFERENCES

At the New Haven conference of the American Library Association the following resolution was adopted on June 26, 1931, by the American Library Institute and by the Council of the American Library Association:

WHEREAS, It is the province of copyright legislation to secure to authors legal protection for their works and

WHEREAS, No principle of copyright requires or justifies—as a condition for securing such protection—the obligatory manufacture of an author's work within the United States or justifies restriction of the importation into the United States of copies of the foreign author's own authorized edition of his work, and

WHEREAS, It is generally admitted that the United States should join with other countries of the world in attempting to secure world-wide and uniform protection for literary and artistic property, therefore we, the Council of the American Library Association, hereby

Resolve, That Congress be respectfully petitioned to enact suitable legislation:

1. To permit the United States to enter the International Copyright Union by adherence to the Convention for the Protection of Literary and Artistic Works, signed at Rome on June 2, 1928:

2. To abrogate the requirement of obligatory manufacture of the works of authors within the limits of the United States as a condition for obtaining copyright protection: and

3. To abrogate restrictions imposed upon libraries or individual book buyers, to limit or hinder them from the importation for use of copies of the authorized edition of a foreign author's book.

At the library conference held in Chicago in October, 1933, the following resolution was voted by the American Library Institute and the Council of the American Library Association:

WHEREAS, It is generally admitted that the United States should join with other countries of the world in attempting to secure world-wide and uniform protection for literary and artistic property, therefore we, the Council of the American Library Association, hereby

Resolve, That Congress be respectfully petitioned

To permit the United States to enter the International Copyright Union by adherence to the Convention for the Protection of Literary and Artistic Works, signed at Rome on June 2, 1928, by passing as written Senate Bill 1928 and H.R. 5853 of the Seventy-third Congress, first session.

This resolution was supported by a statement on the "Present copyright situation," by Thorvald Solberg, who explained why the procedure indicated in the bill referred to in the resolution was especially appropriate for proposal at the present session of Congress. This position was approved in a brief statement by Dr. Raney, and thereupon the resolution was voted.

In conclusion, President Lydenberg suggested that members of the American Library Association should write to senators and members of Congress and urge them to support the bill S. 1928 and H.R. 5853.

THORVALD SOLBERG

WASHINGTON, D.C.

A BILL TO ENABLE THE UNITED STATES TO ENTER THE INTERNATIONAL COPYRIGHT UNION

SECTION 1. *Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That copyright throughout the United States and its dependencies shall subsist in the work of alien authors, not domiciled in the United States, by virtue of the adherence of the United States to the Convention of Berne for the Protection of Literary and Artistic Works of September 9, 1886, as revised at Rome on June 2, 1928.

SEC. 2. From and after the date upon which the adherence of the United States to the said convention of 1928 becomes effective, copyright protection shall be accorded without compliance with any conditions or formalities whatever for all works by such alien authors who are nationals of any country which is a member of the International Copyright Union, as well as for any work which may be or has been first published in a country which is a member of the said Union: *Provided*, That as to copyright in works not previously copyrighted in the United States, no right or remedy given pursuant to this Act shall prejudice lawful acts done or rights in or in connection with copies lawfully made or the continuance of business undertakings or enterprises lawfully undertaken within the United States or any of its dependencies prior to the date on which the adherence of the United States to the said convention of 1928 goes into force; and the author or other owner of such copyright or person claiming under him shall not be entitled to bring action against any person who has prior to such date taken any action in connection with the exploitation, production, reproduction, circulation, or performance (in a manner which at the time was not unlawful) of any such work whereby he has incurred any substantial expenditure or liability.

SEC. 3. Copyright is hereby granted and secured by this Act to all authors entitled thereto from and after the creation of their work, whether published or unpublished, including works of architecture and choreographic works and pantomimes, and the duration and termination of such copyright shall be governed by the provisions of section 23 and 24 of the Act of March 4, 1909 (U.S.C., title 17): *Provided*, That the duration of copyright in the United States shall not in the case of the work of any alien author extend beyond the date upon which such work has fallen into the public domain in the country of its origin as defined in said convention of 1928.

SEC. 4. The rights granted in section 1 of the said Act of 1909 (U.S.C., title 17) shall include the exclusive right of the author to communicate his work for profit to the public by any system of broadcasting; and the author of any copyrighted work, even after the assignment of the copyright in such work, shall at all times have the right to claim the authorship of his work, and the right to oppose every distortion, mutilation, or other modification of the said work which might be prejudicial to his honor or to his reputation, as well as the right to restrain the publication and/or the performance of the mutilated work.

SEC. 5. The Supreme Court of the United States shall prescribe such additional or modified rules and regulations as may be necessary for practice and procedure in any action, suit, or proceeding instituted for infringement under the provisions of this Act.

SEC. 6. This Act shall take effect from the date of its passage.

MR. HANSON AND HIS FRIENDS

WASHINGTON in the Theodore Roosevelt era was gay, charming, cosmopolitan. I thought it a delightful adventure to leave my native Middle West for this glamorous city, and to turn from study at the University of Illinois Library School to a position in the Catalog Division of the Library of Congress. The national library was then, as now, the center of interest for American librarians. Herbert Putnam, Librarian of Congress, of keen mind and far-seeing intelligence, was steadily building up the library and keeping it out of politics.

The Catalog Division was a smoothly running and highly organized unit of over one hundred people, engaged in the gigantic task of re-cataloging and reclassifying the great collections already assembled at the Library of Congress and in caring for its current accessions. The branch printing office located in the building could not keep up with its output.

This great body was organized and captained by a great chief, James C. M. Hanson, in command by right of sound scholarship, of administrative ability, of integrity and straightforward manhood, of generous sympathy and understanding. Simple and austere in personal habit, he never sacrificed conviction to convenience or ambition. Upholding Mr. Hanson's hands were two of his former associates at the Newberry Library: Charles Martel, chief classifier, and Steingrímur Stefánsson, chief reviser. Mr. Martel's fame as founder of the Library of Congress system of classification, chief classifier from 1897 to 1912, and chief of the Catalog Division from 1912 to 1930 is secure. But aside from his former associates, I imagine few librarians know of Mr. Stefánsson or of the debt owed him by American librarianship.

An Icelander with the frame of a viking, Mr. Stefánsson felt the northman's scorn of physical weakness. His death at the age of fifty at the height of his mental powers was a severe shock to the Catalog Division and an irreparable loss. One of the most lovable of human beings, he was a great linguist, historian, art critic, mathematician, and philosopher. He would drop down for a minute at one's desk to expound his philosophy of style or to indulge in trenchant criticism of an American poet. Reared in the household of a priest where only

Latin was spoken, that language was as familiar to him as Icelandic. His eager intellectual curiosity explored men as well as books. Of disarming simplicity, he was kindness itself to the newcomer. I remember his tactful habit of prefacing "You always do it this way, don't you?" to valuable suggestions as to the phrasing of bibliographical notes. He was a great soul, untouched by human pettiness and jealousy. I have never known anyone so completely absorbed in cataloging as he. All his great learning was devoted to its service. He highly prized that rare gift, cataloging ability. When an exceptionally fine cataloger resigned to be married, he mourned for days. "Anyone," he exclaimed, "can get married, but few can catalog!"

Mr. Hanson had a loyal friend in Charles Hastings, who, as chief of the Card Distribution Section (later Card Division), was in effect the business manager of the Catalog Division in his capacity as distributor of printed catalog cards to American and foreign libraries. Energetic, patient, resourceful, he personified the traditional virtues of his native Maine. He is still working twenty-four hours a day, eight days a week, so they say, just as when he first organized his section. The Catalog Division has an understanding friend and ally in Mr. Hastings, who was its chief in the interim between Mr. Hanson's resignation and Mr. Martel's appointment as head of the division. Characteristically, he did not relinquish his own work in taking on this difficult job.

The smiling and gentle Louis Sóllyom, a Hungarian by birth, and a remarkable linguist, was the patriarch of the division. Coming to this country to enlist in the Union army, he served through the Civil War, then acted as an interpreter in a New York bank from 1865 to 1867, when he joined the staff of the Library of Congress. There comes to my mind a picture of Mr. Sóllyom in the last year of his life, seated on the veranda of his Maryland home in a frame of tangled vines and overhanging trees. A part of the scene, and yet spiritually remote, his thoughts flitted now to the countries and people of his youth, now to the young people of the country neighborhood, and now to his wife resting in the little burying-ground of the homestead.

I am indebted to Mr. Sóllyom's son-in-law, Dr. George Morton Churchill of George Washington University, for the following biography:

Louis Charles Sóllyom de Antalfa. (Not d'Antalfa; the *de* is the Latin *de*, not the French *de*, and is never elided in Hungarian names) born near Zbaraj,

in Austrian Poland, May 25, 1836; died at his home, Antalfa, near Bethesda, Maryland, April 29, 1913.

His family was Magyar petty gentry. They had moved from Hungary a generation before. The name Antalfa was that of their Hungarian estate, which had passed out of the hands of the family. He was brought up on his mother's estate near Zbaraj; entered the Austrian army, served in the cavalry, and was stationed in garrison in Bohemia, and later served in the Franco-Austrian War of 1859. After his discharge he wished to go to Egypt, but found an opportunity to go to America, and went there instead. He had either served, or tried to serve with Garibaldi, and after that a return to the Hapsburg dominions would have been unwise. He worked his passage on an English vessel from an Italian port to New York, where he found congenial work in a bookstore. After the Civil War broke out he enlisted in a cavalry regiment; his European experience proved useful, and he was commissioned First Lieutenant. His service was with the Army of the Potomac. He was in the battle of Fredericksburg, was captured with a detachment left to guard the retreat, and escaped by swimming the Rappahannock. He was wounded in the battle of Chancellorsville, and discharged soon after.

He had always had a talent for languages, perhaps strengthened by family conditions, for Polish and Hungarian were spoken in the family, and he once said: "We had Ruthenian servants, so probably the first words I ever spoke were Ruthenian." Latin and Greek were a part of his education at the monastery school (his teachers wished him to enter the priesthood), French was the language of good society, German the official language, and Russian was much used in the neighborhood. He learned Czech in his service in Bohemia, and Italian in the same way. He studied English by himself in order to read Byron; and used to say that he knew pages of Byron by heart before he ever heard a word of English spoken. This is an example of his remarkable verbal memory, which lay at the foundation of his linguistic acquirements.

Mr. Sólyom's acquaintance with languages brought him his next position after leaving the army. He returned first to the bookstore in New York, and was working there when he saw an advertisement for a clerk in a savings bank; acquaintance with languages was necessary, for the bank had a polyglot clientèle. He answered it with a letter which began in English and changed into a different language with every sentence. A few days later a slightly bewildered bank official came into the store and offered him a position, his employer being quite willing to go on his bond.

He was still in the bank when in 1867 he was offered a position in the Library of Congress, then headed by Mr. Spofford, largely on the strength of his knowledge of Russian. The purchase of Alaska had brought in a quantity of Russian material. He spent the remainder of his life in the Catalog Division of the Library of Congress as cataloger and classifier, for a time at the head of the division. In his last years he was in charge of the

Orientalia, and handled the shrinking remnant of the "old classification," the part of the Library not yet worked over into the new Martel classification.

Mr. Sólyom married, soon after his discharge, a young lady whom he met in Washington while in a hospital after Chancellorsville, Miss Sarah Good, of a Georgetown family. (Her sister's fiancé was in the Confederate army, and there is a family tradition that one sister used to receive her Union sweetheart and his friends on the front porch, while the other was entertaining her Confederate sweetheart and his friends on the back steps, each party taking extreme care not to know of the other's presence.) Soon after entering the Library of Congress he bought a farmhouse and adjacent land on the River Road just over the line in Maryland. His desire was to return to the country life in which he had grown up, and naturally he named his place Antalfa, after the family estate in Hungary. There he spent as much as possible of the last forty years of his life. A good part of the time, in the early years, must have been spent in driving over the somewhat primitive road to Georgetown, the terminus of the horse-car line, the only way of reaching the Capitol. For several winters the Sólyoms moved into the city, but as transportation conditions improved and the family became larger they settled down at Antalfa, in what was then really a country environment, with only one family near, the Loughboroughs, across the road, but at a distance. Squire Loughborough had fought in the Confederate army and in Virginia. He and Mr. Sólyom always enjoyed their war reminiscences.

He had many hobbies and followed them simultaneously or in succession with cheerful enthusiasm. He collected languages as others collect postage-stamps or pictures. Turkish, Chinese, Georgian and Armenian, with such Slavic dialects as came in his way, were among his rarer acquisitions. He could read, I believe, about thirty languages, and spoke twelve or fifteen. His study of Turkish brought him in contact with the Turkish embassy, and he was acquainted with several of the Turkish representatives. For his translation into English of several Turkish books, the Sultan gave him the decoration of the Order of Medjidi.

He took to bicycling in the 1880's, joined a bicycle club, and used to ride an old-fashioned high wheel over the hills to the Library. He became interested in amateur photography, and for a time in scroll-saw work. Chess was a lasting hobby; another was gladioli which he grew on a large scale. His friends at the Library remember the great clusters of flowers which he used to bring in for the young ladies of the Catalog Division.

Mr. Sólyom's health was generally good, until an accident some three months before his death, which confined him to his house. In accordance with regulations, he was transferred shortly before his death to the temporary roll, with per diem pay for actual service, but he remained connected with the Library until the last. His funeral service was, appropriately enough, held

on the front porch of his home at Antalfa; and he was buried in the family burying-ground near the house, where his wife and his two older sons were buried. Three children survived: Julia (Mrs. Reynolds), Maday (Mrs. George M. Churchill), and Herbert, who now lives on the old place.

Jens Christian Bay, now librarian of the John Crerar Library, was a classifier in the Catalog Division when I entered it. His very great kindness in introducing me, fresh from library school and inexperienced, to the choicest reference books and in performing many other friendly services are agreeable memories. In his work, exemplifying the best traditions of European scholarship, Mr. Bay made a valuable contribution to the Library of Congress classification.

Jessie Watson was a sane, good-humored counselor to whom one could go when difficulties multiplied. After Mr. Stefánsson's death the whole staff leaned heavily on her. Dr. Walther Koenig's modesty could not conceal his marvelous scholarship now set forth in the classification schedules for classical and modern European philology, published in recent years. Jane Cooke was, and is, a great cataloger, who asks no reward except to continue to work in the best American bibliographical laboratory.

The Old Guard which saw service under Mr. Hanson still musters a gallant force in the Catalog Division: Jessie Watson, Harriet Pierson, Mary MacNair, Eliza Skinner, Alice Griswold, Georgia Fenton, Jane Cooke, Irma Blake, and Annie Sinclair. No tribute can be too great to pay to their devotion and loyalty in holding the quality of the printed card to the high standard established by Mr. Hanson. It is impossible to estimate the value of their contribution to American research.

HELEN K. STARR

JAMES J. HILL REFERENCE LIBRARY
ST. PAUL, MINNESOTA

WHO WAS J. L. S.**?

ONE of the most important sources of Alaskan history is a small octavo (6 $\frac{3}{4}$ × 4 in.) book of 173 pages published in Germany in 1776 under the title:

Neue Nachrichten / von denen / neuentdeckten Insuln /
in der / See zwischen Asien und Amerika; /
aus / mitgetheilten Urkunden und Auszügen /
verfasst / von / J. L. S.** / (Vignette)—Hamburg
und Leipzig, / bey Friedrich Ludwig Gleditsch. /
1776.

After a short introductory note referring to the discovery of Alaska by Bering and Tchirikov, as related in Müller's "instructive accounts" (lehrreiche Nachrichten),¹ it gives in chronological sequence narratives of the various expeditions undertaken by the Russian promyshlenniki, or fur-hunters, in quest of the "golden fleece," represented primarily by the precious sea-otter skins and supplemented by the pelts of the blue fox and the fur seal.

These accounts begin with Bassov's voyage of 1745 (§ 1, p. 9) and end with Otcheredin's expedition in the *St. Paul* to Unalaska, 1765-70 (§ 22, pp. 155-65), which is the last one reported on. The accounts are abstracted from authentic documents in the archives of the Academy of Sciences in St. Petersburg and other official sources. However, they do not pretend to be exhaustive, as proof of which it is important to quote the last paragraph of the introductory remarks (p. 8) which in literal translation reads as follows:

Much more complete and better authenticated accounts of the new discoveries in the Eastern Ocean may be expected from the expert pen of the famous "Kollegenrath" [G. F.] Müller. But inasmuch as this venerable gentleman with his advancing age and the burden of so many other tasks may possibly postpone the working up of this field for a long time, a real service may be rendered the curious German reader by the present exact abstracts and best possibly annotated accounts, especially if they might give rise to the publication of still further accounts of this kind. Here is presented at least

¹ "Nachrichten von Seereisen, und zur See gemachten Entdeckungen, die von Russland aus längs den Küsten des Eismeereres und auf den ostlichen Weltmeere gegen Japon und Amerika gesehen sind" in G. F. Müller's *Sammlung Russischer Geschichte* (St. Petersburg, 1758), III, 1-304.

something more exact and correct than is contained in the above mentioned printed account, as well as correction of many of the errors contained therein.

The publication alluded to (on p. 5) without mention of the author's name, was an article by Jacob von Stählin in the *St. Petersburg Geographic calendar* for 1774³ which appeared in German almost simultaneously.³ Stählin sent a copy of the latter to Dr. Matthew Maty in London⁴ who had it translated into English and published the same year⁵ with a long preface written by himself.

Stählin was at that time secretary of the Academy of Sciences at St. Petersburg with which he had first become connected in 1735 as adjunct and later as professor of eloquence and poetry. His early specialty was the designing of fireworks and the composing of poems and cantatas for the numerous anniversary festivities celebrating the birthdays, name days, coronation days, weddings, etc., of the numerous imperial personages of the period; he was also the founder and director of the Academy of Arts, had been the educator of the unfortunate young Peter III, and as such associated with the imperial court; was an authority on allegorical and other aesthetic matters, and had at one time been editor of the *St. Petersburger Zeitung* published by the academy. In fact, there was probably no theme he was not considered competent to descant upon. He therefore did not hesitate to select for his contribution to the above mentioned calendar an "Extract of the report made to the Directing Senate, from the Chanceries of the Government of Irkuzk, Kamtschatka & Bolscherezk shewing what Islands have been discovered by the Promyshlenniki or Commerical Company, on their Trading Voyage beyond Kamtschatka; what People inhabit those Islands, and what Animals and Productions were found there." Stählin's own account (20 pages) of the islands

² "Kratkoe izvyestie o novoizobretennom severnom arhipelage," *Mesyatseslov istoricheskij i geograficheskij na 1774 god* (not seen; quoted from L. Berg: *Zemlevedenie*, XXIV [1924], 115).

³ *Das von den Russen in den Jahren 1765, 66, 67 entdeckte nordliche Insel-Meer zwischen Kamtschatka und Nordamerika* (Stuttgart, 1774), 12^o, pp. 40 (not seen; title from Berg, *loc. cit.*).

⁴ See Coxe, *Account of the Russian discoveries between Asia and America* (3d ed., 1787), p. 25.

⁵ *An Account of the new northern archipelago, lately discovered by the Russians in the seas of Kamtschatka and Anadir*. By Mr. J. von Stählin, Secretary to the Imperial Academy of Sciences at St. Petersburg, and member of the Royal Society of London. Translated from the German Original. (Vignette) (London: Printed for C. Heydinger, in the Strand, MDCCLXXIV), 8 $\frac{1}{2}$ × 5 $\frac{1}{2}$ in., pp. xx+39.

and the history of their discoveries teems with errors and misunderstandings, and the "few remarks and explanations with regard to the names of some plants, beasts, etc. which would otherwise be unintelligible," with which he annotated the report itself, are equally erroneous. The treatise is accompanied by a folded map which Bancroft⁶ characterizes as an "offspring of Croyère's abortion" and "perhaps the most preposterous piece of imaginary geography in existence."⁷ Altogether, his statement that Stählin "everywhere displays the grossest ignorance," is no exaggeration.

Naturally, the appearance of Stählin's monstrosity in German and English made a very painful impression on those members of the St. Petersburg Academy who were familiar with the actual facts, and especially on the great historiographer of the academy and the Kamtchatkan Expedition, Professor Gerhard Friedrich Müller, the "father of Russian history," who for more than a generation had collected data for the academy's atlas of the Russian Empire. The map, which in a slightly different form had been published in 1773 by the geographic section of the academy, was so grotesque that he had to warn against it at once, which is said to have been done in Büsching's *Wöchentliche Nachrichten*,⁸ but the text had to be dealt with in a more discreet manner. Of course it would not do to disavow outright a fellow member officially, especially as the *Calendar* had been published by the academy, but something would have to be done to counteract the effect abroad without compromising the dignity of that august body.

Müller was an old hand at that sort of corrective. The publication in Germany of anonymous pamphlets containing the facts it was desired to establish—without directly criticizing high dignitaries—was the proper remedy. And this was not the first time resort was had to such a procedure. It will be recollected that an anonymous pamphlet was published in Frankfurt in 1748 to counteract the indignation produced by the publication of G. W. Steller's biography by his brother the previous year in Justi's *Ergetzungen*. Gmelin was at one time credited with being its author, but it is fairly certain that he was not. The actual authorship, however, has not yet been discovered, but there can be no doubt that Müller had something to do with the production of the book.

Next we have the celebrated case of the anonymous *Lettre d'un*

⁶ *History of Alaska* (1886), p. 129.

⁷ *Op. cit.*, p. 158.

⁸ Peter Simon Pallas, *Neue nordische Beyträge*, I (1781), 275.

officier de la Marine Russe, published in 1753 as a counterblast to J. N. de l'Isle's attempt to vindicate for himself and his brother the credit for the Russian discoveries. General A. W. Greely has most brilliantly and convincingly demonstrated⁹ that Captain Swen Wexall, second in command under Bering, is the actual author of the *Lettre*. It may be quite true that a manuscript copy of the *Lettre* in Müller's handwriting is preserved in the archives of the Leningrad Academy of Sciences, but that does not prove him to be the author. On the other hand, it goes a long way to show that Müller was the instigator and editor of the famous anonymous epistle.

Two years after Stählin's effort, the pamphlet—titled as stated at the beginning of this article and signed by J. L. S.**—appeared.

When William Coxe in the summer of 1778 visited Moskva and there collected material for his celebrated *Account of the Russian discoveries*, his attention was called to the *Neue Nachrichten*, which he translated and incorporated in his book. His reason for doing so he gives as follows:¹⁰

As the author has not prefixed his name I should have paid little attention to an anonymous publication, if I had not been assured, from very good authority, that the work in question was compiled from the original journals. Not resting, however, upon this intelligence, I took the liberty of applying to Mr. Müller himself,¹¹ who by order of the Empress, had arranged the same journals, from which the anonymous author is said to have drawn his materials. Previous to my application, Mr. Müller had compared the treatise with the original papers; and he favored me with the following strong testimony to its exactness and authenticity:

Vous feres bien de traduire pour l'usage de vos compatriotes le petit livre sur les isles situes entre Kamtchatka et l'Amerique. Il n'y a point de doute, que l'auteur n'ait été pourvu de bons memoires, et qu'il ne s'en soit servi fidelement. J'ai confronté le livre avec les originaux.

⁹ *National geographic magazine*, III (1892), 205-30.

¹⁰ I quote from the third edition of his *Account* (1787), the first not being available.

¹¹ Coxe was introduced to Müller in Moskva at a dinner given by Prince Volkonski, after which he accompanied the great historian, then director of the State Archives, to his house and "passed some hours in his library." Müller afterwards showed him "the place in the Khitaigorod where the public archives are deposited, which is a strong brick building, containing several vaulted apartments with iron floors" (Coxe, *Travels into Poland, Russia, etc.*, I [1784], 328, 392). When Müller left St. Petersburg he had the intention of continuing his account of the Siberian discoveries, which in his "Sammlung" ended with the close of the Bering expeditions, and for this purpose "took with him to Moskva the [Academy's] Siberian archival documents" (*Materialui dlya Istorij Imperatorskoj Akademii Nauk*, VI [1890], 4).

Peter Simon Pallas, another of the great lights of the St. Petersburg Academy, must also have had something to do with the origin of the pamphlet and consequently knew the secret of its authorship. In 1777 he wrote a paper which he submitted to Count de Buffon for publication in the latter's *Sept époques de la nature*. This article according to him¹² was "for the greatest part based on the very same original reports, which in abstract saw the light about five years ago in a small German work entitled *Neue Nachrichten* etc." Nevertheless, the secret was so well kept that the learned world has been kept guessing ever since.

At first it was thought that the initials J. L. S.** were a misprint for J. B. S., the anonymous editor of *Georg Wilhelm Stellers Beschreibung von dem Lande Kamtschatka*, published two years previously (1774) in Frankfurt and Leipzig, and consequently that the author of the *Neue Nachrichten* was the worthless literary pirate Jean Benoit Scherer. He had just left St. Petersburg, where he had lived for about ten years previously, and obtained a position at Versailles as "commis" in the Ministry of Foreign Affairs. However, from the very excellence of the work it was soon realized that he could not have been the author, and the search for likely persons with the initials J. L. S. continued. But as the combination of these three letters did not fit anybody known to the learned world, one or the other initial would have to be ignored.

There was then Schlözer, a member of the academy at St. Petersburg and resident there until 1767. As such he might have had access to the documents in question and his initials were A(ugust) L(udwig).¹³ He had been literary assistant to Müller, with whom, however, he quarreled, and afterward became professor of Russian history at the academy. As the author of *Allgemeine Geschichte von dem Norden*, published in 1771, he was well qualified to have been the J. L. S**, but his relations with Müller were such that the references to the latter in the anonymous pamphlet and Müller's praise of its author practically exclude him from consideration.

The guessing finally settled upon J(acob) von S(tählin) as the guilty party. The one reason for this was the circumstance that two years earlier he had produced the other pamphlet already character-

¹² P. S. Pallas, *op. cit.*, I (1781), 273.

¹³ It is curious to note that Bancroft (*History of Alaska* [1886], p. 222), in his zeal to vindicate the anonymous authorship for him, calls him J. L. Schlözer, though in the bibliography, p. xxxv, he has the name correct!

ized above. Apart from the fact that he also had quarreled with Müller, who, as shown above, had the documents with him in Moskva, there are numerous reasons why he could not have been the author. The contemptuous way in which J. L. S** speaks of Stählin's 1774 product alone is sufficient argument against it. Moreover, if Stählin were to publish a corrected and augmented supplement to his former work, why should he do so anonymously? Stählin himself was certainly the last man in the world to put his light—and that such a brilliant light—under a bushel; publicity was the very essence of his life! It might be argued that perhaps he had obtained the data surreptitiously and published them without permission or even against the will of the academy, but that assumption is disproved by the very praise bestowed upon the work by Müller and his recommendation that Coxe translate it into English. Finally, in corroboration of the conclusion that Stählin had nothing to do with the *Neue Nachrichten* may be cited the fact that while in his biography based on his papers nearly a whole page is devoted to the 1774 article with reproduction of the map,¹⁴ there is not the remotest hint at the *Neue Nachrichten* of 1776.

Who, then, may J. L. S** have been?

Mention has already been made of the fact that Stählin at one time was the editor of the *St. Petersburger Zeitung*, owned and published by the academy. In 1768 he retired from the supervision of the journal, which now came under the exclusive direction of J. L. Stavenhagen, who had been connected with it as assistant editor since 1757. Stählin's criticism of his successor's management¹⁵ betrays an antagonism between them which was not easily allayed.

Johann Lorenz Stavenhagen was born in St. Petersburg in 1726, the son of a tailor, and at ten years of age became a pupil of the academy gymnasium or latin school. In the course of time he became attached to the office of the academy as a copyist, and in 1751 was made archivist of the scientific section. As such, all the documents of the latter passed through his hands or were in his custody. He, of course, was constantly in touch with Müller, who was then publishing his *Sammlung russische Geschichte* and was perfectly familiar with that work and its sources. That Stavenhagen was interested in historical and geographical matters and capable of writing intelligently

¹⁴ Karl Stählin, *Aus den Papieren Jacob von Stählins* (1926), pp. 328–30.

¹⁵ *Ibid.*, p. 298.

about them is shown by the fact that in 1753 he published in the Russian language a textbook of ancient geography, the second edition of which appeared in 1788 and the third in 1813.

Therefore, when Müller was looking around for a compiler of the pamphlet which was to offset the bad effect of Stählin's misinformation, there was nobody more willing and more competent to do the job than Stavenhagen. Müller himself verified the manuscript, comparing it with the original documents, and Pallas, who had just returned from his Siberian voyage, seems also to have had a hand in so doing.¹⁶

It would not do, of course, to have the pamphlet published with the full name of one of the subordinate officials of the academy, and so it appeared anonymously under the author's signature J. L. S**, which meant nothing to the scientific world outside of the narrow circle of the St. Petersburg Academy.

J. L. Stavenhagen was connected with the academy as editor and manager of the *St. Petersburger Zeitung* until 1779, when he was removed for an unknown reason, and his further fate seems to be unknown.¹⁷

LEONHARD STEJNEGER

UNITED STATES NATIONAL MUSEUM

¹⁶ *Op. cit.*, I (1781), 249 ff.

¹⁷ Eichhorn, *Geschichte der "St. Petersburger Zeitung"* [1902], pp. 86, 92, 112.

ON THE USE OF ULTRA-VIOLET RAYS FOR DETECTING REPAIRS IN PRINTED BOOKS, ESPECIALLY INCUNABULA

THE number of libraries grows every year; but the number of old books available is decreasing, since the volumes which enter a public library are out of the market. From time to time, owners of old books sell their collections, usually ones which they did not bring together themselves but inherited. Unfortunately, most of the books which were abandoned for a long period are largely soiled, have leaves crumpled or lacerated, and have lost white or printed leaves.

Booksellers know that imperfect books cannot be sold or are sold for a lower price. They are willing to spend for the correction of the defects in proportion to the value of the book. Cleaning soiled paper is not always an easy process; but old papers are strong, and with a judicious choice of reagents, it is almost always possible to present books with all their pages equally white, without apparent damage to the printing. Substitution of missing leaves is not difficult if you have access to a perfect copy of the same work. It is worth while to make a photographic reproduction, and it is not impossible to find leaves of true old paper, even with the same watermark, since lots of old white papers are frequently items in book auctions in Rome, Naples, etc. Every secondhand bookseller is provided with such material. If only a part of a page is missing, the utmost care is required. The wire-marks and sometimes part of a watermark must be traced on the paper-paste used for filling the gap, and the new printing block has to match perfectly with the remaining part of the text.

One of the most skilful repairs I have ever seen is reproduced here (Fig. 2). It is the work of Mr. Franz Diehl (München, Amalienstrasse 38), and it deserves a great deal of praise.¹ The piece is taken from Hartmann Schedel, *Das Buch der Chroniken und Geschich-*

¹ The works of Mr. Diehl are described by him as follows: "Ergänzung von Papier, Druck und Kolorierung; Anränderungen; Entfernung von Wurmlöchern und Rasuren; Reinigen von Holzschnitten, Büchern und Stichen von Flecken aller Art; Entfernung hartnäckiger Stempel und Tinten; Faksimilierungen; Anbringung von Stock- und Wasserflecken."

ten, German translation by Georg Alt of the *Liber Chronicarum* (Nürnberg: Anton Koberger, December 23, 1493) (Hain+14510, Proctor 2086, Br. Mus. II, 437). This edition contains many woodcut drawings by Michael Wolgemuth and Wilhelm Pleydenwurff, and the portrait of Gregorius XI is on folio ccxxxi^v (Fig. 1, from an original in the Vatican Library, Inc. Ross. 1517). The leaf repaired by Mr. Diehl had a hole extending from the dotted lines on Figure 2 to the base of the drawing. The hole was filled with paper paste, and a small wood block was cut for the printing of the missing part. The printing was done so accurately that no joining of the lines is to be seen. Only a comparison with the original lines shows the repair, because the block has been cut from a handmade drawing and not prepared by photographic process. Seeing the repaired leaf alone, the most careful examination does not reveal the repair.

Serious buyers will purchase cleaned or repaired books, but they like to know in what measure secondhand books are in their original state. When Mr. Diehl showed me samples of his repairs, I thought immediately of the danger of such skilfulness if a bookseller tries to use it without warning his customers. I wished to find a means of detecting these marvelous repairs.

Mgr Giovanni Mercati, after the experiments of Mr. Charles Samaran on the deciphering of palimpsests under ultra-violet light, had purchased for the Vatican Library in March, 1927, a mercury quartz lamp of a very simple medical model (Gallois, Paris, 660 watts). Under that light I used to examine the samples of papers to be employed for the publications of the library. I knew that many substances mixed with the regular cellulose appear under the ultra-violet rays and also that different papers are colored in various ways, ranging from the sharp violet to the brownish violet. Following are the results of my observations:

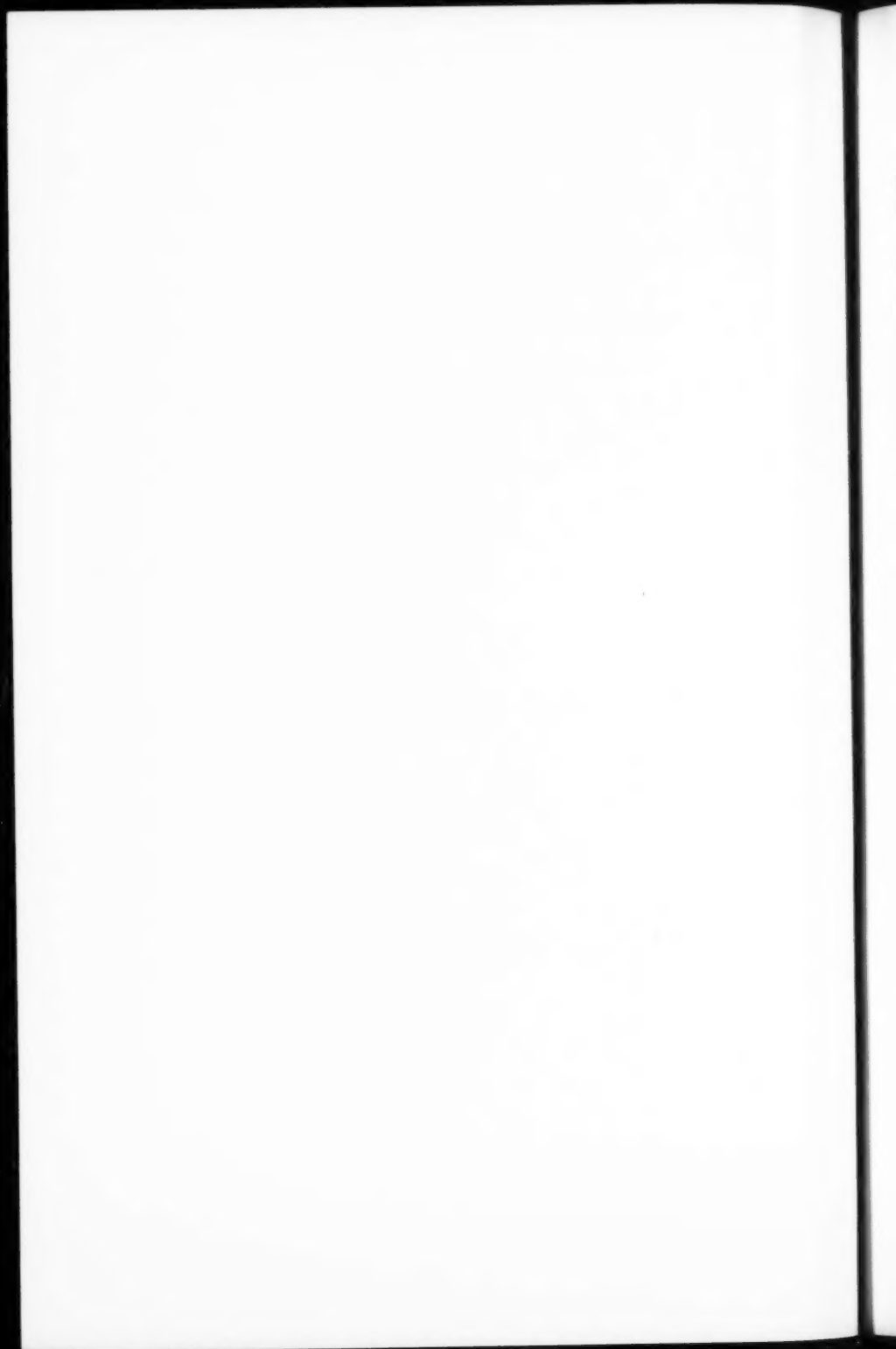
1. In old printed papers the printing appears surrounded with a halo of yellowish color, resulting from the penetration in the paper of the greasy element in the ink.
2. If the paper has been cleaned by chemical reagents, the halo disappears partly or entirely, since the reagents have been used generally for removing traces of grease. The washed paper is brownish; if a part of a leaf has been washed, the difference in color is striking.
3. If a gap has been filled with paper paste, the color of the added piece will, in most cases, be different from the original paper. I found the new paper of more vivid color once and brownish another time



FIG. 1



FIG. 2



In both examples examined, the difference in color was striking. On the repaired part the printing was without halo.

4. On vellum the old printing appears without halo, and I found no difference between an original piece and a new one.

I had no time for more systematic experiments, and I do not have sufficient knowledge of organic chemistry for developing a theoretical study of the matter. But it seemed to me that the present communication might be useful to librarians, since the simple turning-over of pages under ultra-violet light in a few minutes gives them the most valuable information on the state of a rare book. It is easy to find ultra-violet ray lamps not only in university laboratories but also in many physiotherapeutic clinics, and no bookseller can deny to a librarian the permission to examine at ease a book which may be the subject of an important transaction.

EUGÈNE TISSERANT

BIBLIOTECA APOSTOLICA VATICANA

TECHNISCHE LITERATUR IN DEUTSCHEN BIBLIOTHEKEN

DIE staunenswerte Entwicklung, die der Technik in den letzten hundert Jahren beschieden war, hat wie in anderen Ländern so auch und in besonderem Masse in Deutschland eine wachsende technische Literatur hervorgerufen. Diese Literatur beruhte bis zur Mitte des vorigen Jahrhunderts vorwiegend auf praktischem, erfahrungsmässigem Wissen und war zum grössten Teil beschreibender Art. Seit dieser Zeit tritt entsprechend der zunehmenden Durchdringung der Technik mit wissenschaftlichem Geist der wissenschaftliche Charakter stärker hervor. Das gilt sowohl für Einzelwerke als auch für Sammelwerke und Zeitschriften. Zur technischen Literatur gehört nicht nur das Schrifttum, das sich auf die Hauptgebiete der Technik, die mechanische und die chemische Technologie, die Bautechnik—Hoch- und Tiefbau—das Maschinenwesen mit seinen vielen Zweigen—Wärmetechnik, Arbeitsmaschinen, Kraftmaschinen, Verkehrsmaschinen usw.—die Elektrotechnik, den Bergbau und das Hüttenwesen bezieht. Auch auf anderen Gebieten, z.B. dem Gesundheitswesen, dem Kriegswesen, dem Seewesen, der Landwirtschaft, gibt es ein umfangreiches technisches Schrifttum. Dazu kommen die technischen Anwendungen der exakten Wissenschaften mit ihrer reichen Literatur: die technische Mechanik, die technische Physik und anderes, und schliesslich diejenigen Fächer, deren Grundlage das technische Können bildet, wie die Baukunst und das Kunstgewerbe. Ausser den im Buchhandel erscheinenden Schriften gehören zur technischen Literatur die zahllosen amtlichen Drucksachen: Pläne, Berechnungen, Voranschläge, Berichte und andere technische Schriften, die von staatlichen, städtischen und ständischen Behörden, insbesondere von Bauämtern und Betriebsverwaltungen herausgegeben werden; die von den Patentämtern veröffentlichten Beschreibungen neuer Erfindungen, deren ausschliessliche gewerbliche Verwertung den Erfindern für eine Reihe von Jahren gesetzlich geschützt worden ist; die Dissertationen, Habilitationsschriften, Festreden und sonstigen akademischen Schriften technischen Inhalts; die Veröffentlichungen technischer Vereine und Verbände; endlich die Druckschriften industrieller Unternehmungen mit den Beschrei-

bungen ihrer Verfahren und Erzeugnisse und den Abbildungen der neuesten Maschinen und Geräte, Schriften, die oft hervorragend ausgestattet sind und nicht nur Werbezwecken dienen, sondern auch wertvolles wissenschaftliches Material enthalten.

In den öffentlichen Bibliotheken Deutschlands ist diese Literatur nicht überall in dem wünschenswerten Umfange vorhanden. Die älteren wissenschaftlichen Bibliotheken, die mit ihren reichen Schätzen den Ruhm und den Stolz Deutschlands bilden, haben der Technik früher wenig Beachtung geschenkt, die meisten von ihnen kaufen auch heute noch technische Schriften nur in geringer Zahl. Das gilt besonders von den Staats- und Landesbibliotheken, fast allen Universitätsbibliotheken und einem grossen Teil der Stadtbibliotheken, von denen nur einige wie die Stadtbibliothek Dortmund einen grösseren Bestand an technischer Literatur haben und die Technik pflegen. Der Grund ist keineswegs immer eine Verkennung der Wichtigkeit des technischen Schrifttums. Diese Bibliotheken, deren Hauptbedeutung auf dem Gebiete der Geisteswissenschaften liegt, haben schon Mühe, daneben das sehr grosse Gebiet der exakten Wissenschaften ausreichend zu pflegen, und behalten für die Technik in der Regel wenig übrig. Wenn einige von ihnen trotzdem nicht unbedeutende Bestände an deutscher technischer Literatur besitzen, so liegt das zum Teil daran, dass sie diese Schriften als sogenannte Pflichtexemplare vom Verleger oder Drucker kostenlos erhalten. Das gilt besonders für die Preussische Staatsbibliothek in Berlin, die übrigens seit einigen Jahren auch der technischen Literatur die gebührende Aufmerksamkeit zuwendet. Dass die von dem Börsenverein der Deutschen Buchhändler gegründete Deutsche Bücherei zu Leipzig, die das gesamte seit dem 1. Januar 1913 erscheinende deutsche und fremdsprachige Schrifttum des Inlandes sowie die deutschsprachige Literatur des Auslandes sammelt, für die Technik wie für jedes andere Gebiet immer wichtiger wird, versteht sich von selbst. Das Fehlen der älteren deutschen Literatur und vor allem der fremdsprachigen Auslandsliteratur mindert freilich ihre Bedeutung.

Deutschland hat aber auch Bibliotheken, die man als ausschliesslich oder vorwiegend technische Bibliotheken bezeichnen darf. Eine solche ist die Bibliothek des Reichspatentamts in Berlin. Diese Bibliothek sammelt die amtlichen Veröffentlichungen der Patentämter aller Kulturstaaen und die gesamte Literatur, die zur Prüfung der angemeldeten Erfindungen auf Patentfähigkeit erforderlich ist. Sie enthält jetzt 330.000 Bände, darunter 115.000 Bände mit 8,4 Millio-

nen Patentschriften. Ein vorzüglicher gedruckter Katalog, der durch wöchentliche Verzeichnisse des Zuwachses und häufige, mit dem stehenbleibenden Satz rasch herstellbare Neuauflagen auf dem laufenden gehalten wird, erschliesst ihre Bestände. Den ersten Teil dieses Kataloges bildet ein Standortsverzeichnis in systematischer Anordnung, der zweite ist ein mit äusserster Sorgfalt durchgearbeitetes Verzeichnis von Verfasseramen, Schlagwörtern und Stichwörtern in einem einzigen Alphabet in der Form des in den angelsächsischen Ländern so beliebten, in deutschen Bibliotheken noch wenig verbreiteten *dictionary catalogue*. Eine vorwiegend technische Bibliothek ist auch die über 150.000 Bände umfassende Bibliothek des Deutschen Museums von Meisterwerken der Naturwissenschaft und Technik in München. Ihr Sammelgebiet erstreckt sich auf die Werke aller Zeiten und Länder auf dem Gebiete der Naturwissenschaften und der Technik. Ihre Bestände an technischer Literatur sind aber etwas ungleichmässig zusammengesetzt, da sie zu einem grossen Teil aus Schenkungen stammen. Vorzugsweise den Kreisen der Handwerker und Gewerbetreibenden dienen die im Jahre 1848 gegründete Bibliothek des Württembergischen Landesgewerbeamts in Stuttgart, eine öffentliche Bibliothek für Technik, Kunst und Wirtschaft (mit 111.000 Bänden, 76.500 Vorbildern, 500 Zeitschriften und einer Sammlung der deutschen, schweizerischen, österreichischen und amerikanischen Patentschriften, letzterer in Auszügen) und die 1865 gegründete, etwa 86.000 Bände umfassende Badische Gewerbebücherei in Karlsruhe, die in erster Linie technische Literatur aus den Gebieten des Hochbaues, des Tiefbaues, des Maschinenbaues und der Elektrotechnik anschafft. Zwei neue technische Bibliotheken entstanden im letzten Jahrzehnt durch die Zusammenlegung der Bibliotheken mehrerer technischer Vereine: die mit der städtischen Kunstgewerbe-Bibliothek verbundene "Technische Zentralbibliothek" in Frankfurt a. M. (1922)—die vereinigten Bibliotheken führen jetzt die Bezeichnung Bibliothek für Kunst und Technik—und die in dem Gebäude der Staatlichen Vereinigten Maschinenbauschulen untergebrachte Technische Bücherei in Köln (1923). Die Bibliothek für Kunst und Technik enthält 72.000 Bände, 333.500 Einzelblätter und 4250 Plakate, die Technische Bücherei 13.500 Bände und 700 Hochschulschriften. Beide Bibliotheken sind verbunden mit einer Auslegestelle der deutschen Patentschriften. Es ist hier also dasselbe geschehen wie in New York, wo die vier grössten technischen Vereine Nordamerikas ihre Bibliotheken in einem von Carnegie 1906 gestifteten Gebäude

zusammenlegten (Engineering Societies Library). Selbständige Bibliotheken technischer Vereine sind unter anderen: die 1858 gegründete Bibliothek des Vereins für die bergbaulichen Interessen in Essen (73.000 Bände), die als Handbibliothek der Schriftleitung von "Stahl und Eisen" im Jahre 1881 gegründete Bücherei des Vereins deutscher Eisenhüttenleute in Düsseldorf (64.300 Druckschriften und die deutschen Patentschriften), die im Jahre 1815 gegründete, seit 1929 im Büchermagazin der Technischen Hochschule zu München untergebrachte und von dieser mit verwaltete Bibliothek des Polytechnischen Vereins in Bayern (über 50.000 Bände, grosse Bestände an deutschen und ausländischen Patentschriften), die 1906 eröffnete Bücherei des Vereines deutscher Ingenieure in Berlin, entstanden aus den bei der Redaktion der Zeitschrift des Vereins deutscher Ingenieure eingehenden Besprechungsexemplaren (22.000 Bücher, 5600 Zeitschriftenbände und 4800 Dissertationen) und die 1834 gegründete Bibliothek des Gewerbevereins für Hannover (16.000 Bände). Diese Vereinsbibliotheken sind in der Regel auch Nichtmitgliedern zugänglich. Beachtliche Bibliotheken mit überwiegend technischer Literatur sind ferner die Büchereien, welche sich die grossen industriellen Werke und Betriebe für ihren Gebrauch eingerichtet haben. Ihre Hauptaufgabe ist, alle Veröffentlichungen über die das Werk interessierenden Verfahren und Fabrikate nachzuweisen und zu beschaffen. Sie sind besonders reich an Zeitschriften. Zu den bedeutendsten gehören die Werkbücherei der Fried. Krupp A.-G. in Essen (über 100.000 Bände, 20.000 Einzelschriften, Dissertationen usw., über 600 laufend gehaltene Zeitschriften), die Fachwissenschaftlichen Büchereien der Siemens-Schuckertwerke, Siemens & Halske A.-G. und der Siemens-Bauunion in Berlin-Siemensstadt (68.000 Bände, 700.000 Patentschriften, 1000 Zeitschriften), die Kekulé-Bibliothek der I.G. Farbenindustrie Aktiengesellschaft Werk Leverkusen (Bez. Köln; 60.000 Bände, über 30.000 Dissertationen, Sonderabdrucke usw., 600 Zeitschriften) und das Literarische Bureau der Allgemeinen Elektrizitäts-Gesellschaft (Bücherei) in Berlin (über 35.000 Bände, mehr als 500 laufende Zeitschriften). Eine ungemein wertvolle technische Privatbibliothek ist die von dem Historiker der Technik Franz M. Feldhaus aus eigenen Mitteln zusammengebrachte "Sammlung Feldhaus zur Geschichte der Technik und Arbeit" in Berlin-Tempelhof (gegen 10.000 Bände). Sammelstätten technischer Literatur sind endlich die aus einer Vereinigung der Bibliotheken des ehemaligen Grossen Generalstabes, der Kriegsakademie, der Militär-

technischen Akademie, der Generalinspektion der Pioniere und Festungen und der Inspektion der Verkehrstruppen entstandene Deutsche Heeresbücherei in Berlin (380.000 Bände, 200.000 Kartenblätter), eine öffentliche Reichsbücherei für Wehrwissenschaften, und die im Jahre 1804 errichtete Bayerische Armeebibliothek in München (167.000 Bände). Auch die Bibliotheken einiger Reichs- und Staatsministerien und anderer Zentralbehörden sind hierher zu rechnen, vor allem drei grosse Bibliotheken in der Reichshauptstadt: die Bücherei des Reichswehrministeriums (140.000 Bände, Gründungsjahr der Gruppe Heer: 1822, der Gruppe Marine: 1848; letztere die grösste und wertvollste Sammlung von Marineliteratur in Deutschland), die Bibliothek des Reichsverkehrsministeriums und der Deutschen Reichsbahngesellschaft, die hauptsächlich Eisenbahnwesen, Wasserstrassen, Kraftwagenbau und -verkehr, Flugwesen und Elektrotechnik pflegt und jetzt 104.000 Bände zählt, und die 1885 gegründete Bibliothek des Preussischen Finanzministeriums, der im Jahre 1920 die etwa 5000 Bände umfassende Bibliothek der Hochbauabteilung des ehemaligen Ministeriums der öffentlichen Arbeiten angegliedert wurde.

Eine Gruppe von Bibliotheken, denen ihre Bestände an technischer Literatur eine besondere Bedeutung verleihen, sind die Bibliotheken der Technischen Hochschulen. Technische Hochschulen gibt es in Deutschland in Braunschweig (gegründet 1745), Berlin-Charlottenburg (1799), Karlsruhe (1825), Dresden (1828), Stuttgart (1829), Hannover (1831), Darmstadt (1836), München (1868), Aachen (1870) und Breslau (1910). Zu den reichsdeutschen Hochschulen gehörte bis zum 15. November 1920 auch die durch das Versailler Friedensdiktat dem Deutschen Reich entrissene Technische Hochschule zu Danzig (1904). Jede dieser Hochschulen hat eine grosse Bibliothek, und diese Bibliotheken enthalten nicht lediglich, aber doch als wichtigsten Bestandteil technische Literatur und Literatur aus den Gebieten, die, wie die mathematischen und naturwissenschaftlichen Fächer, die Grundlagen der technischen Wissenschaften bilden, oder die man, wie die Kunstgeschichte und die Volks- und Betriebswirtschaftslehre, als Nebenfächer der Technik bezeichnen darf. Die Bibliotheken der Technischen Hochschulen sind dadurch ausgezeichnet, dass sie entsprechend dem Charakter der Hochschulen als wissenschaftlicher Forschungs- und Lehranstalten ganz überwiegend wissenschaftliche Literatur enthalten. Gemeinverständliche technische Veröffentlichungen sowie Schriften, die hauptsächlich für den praktisch tätigen Ingenieur bestimmt sind, findet man in den Büchersammlungen der

Technischen Hochschulen nur in bescheidener Zahl. Nicht alle Hochschulbibliotheken berücksichtigen aber bei ihren Anschaffungen alle technischen Gebiete gleich stark. In Preussen wird die Gesamtheit der technischen Wissenschaften nur in der Technischen Hochschule zu Berlin-Charlottenburg gelehrt. Die Hochschulen zu Hannover, Aachen und Breslau haben keine Abteilung für Schiffbau und Schiffsmaschinenbau, in Hannover fehlt auch eine Abteilung für Bergbau und Hüttenwesen. Die Bibliotheken der Technischen Hochschulen Hannover, Aachen und Breslau kaufen daher von der Literatur der an diesen Hochschulen nicht gelehrteten technischen Fächer nur eine geringe Auswahl. Andererseits bevorzugt jede Hochschulbibliothek diejenigen Gebiete, die für die betreffende Hochschule besonders wichtig sind, oder auf denen einzelne Professoren einen sehr grossen Literaturbedarf haben. Eine gewisse Vollständigkeit besitzen die meisten Hochschulbibliotheken in der älteren technischen Literatur. Je mehr man in die neuere Zeit kommt, um so mehr weisen sie Lücken auf, namentlich in der ausländischen Literatur. Das Anschwellen des technischen Schrifttums und die Knappheit der verfügbaren Mittel machen es leider überall unmöglich, die in Frage kommende technisch-wissenschaftliche Literatur in der wünschenswerten Vollständigkeit zu beschaffen. Alles in allem darf man aber sagen, dass die Bibliotheken der deutschen Technischen Hochschulen mit technisch-wissenschaftlicher Literatur gut versorgt sind.

Die Bibliotheken der Technischen Hochschulen sind in erster Linie für die Mitglieder des Lehrkörpers und die Studierenden bestimmt, stehen aber auch Nichtangehörigen der Hochschule zur Verfügung. Sie gestatten die Benutzung nicht nur in den Räumen der Bibliothek, sondern leihen auch Bücher zum häuslichen Gebrauch aus. Sie sind sämtlich dem "Deutschen Leihverkehr" angeschlossen. Der Deutsche Leihverkehr dient nach der "Leihverkehrsordnung für die deutschen Bibliotheken" vom 22. Dezember 1930 zur Förderung gelehrter Forschung und wissenschaftlicher Berufsarbeit, er umfasst die öffentlichen Bibliotheken mit vornehmlich wissenschaftlichen Beständen und die Bibliotheken zahlreicher wissenschaftlicher Anstalten, Archive und höherer Schulen. 829 Bibliotheken nehmen zur Zeit an ihm teil. Unter Benutzung des Deutschen Leihverkehrs kann jeder, der zu den Benutzern einer dieser Bibliotheken gehört, jedes entlehbare Buch einer der anderen am Leihverkehr teilnehmenden Bibliotheken gegen eine Bandgebühr von nur 10 Reichspfennig erhalten. Die Versandkosten trägt die entleihende Bibliothek. Nach Orten,

in denen sich keine dem Deutschen Leihverkehr angeschlossene Bibliothek befindet, werden Bücher in der Regel auch unmittelbar an die Besteller gesandt. Die in den Bibliotheken der Technischen Hochschulen vorhandene technische Literatur kommt daher allen Interessenten zugute. Eine praktische Schwierigkeit ist jedoch, dass die Hochschulbibliotheken die am Ort selbst sehr viel gebrauchten Bücher nicht nach auswärts verleihen können, und dass das längere Warten auf ein vielleicht schon aus mehreren Bibliotheken vergebens bestelltes Buch sehr lästig ist. Die Bibliothek des Reichspatentamts und die Bibliothek des Deutschen Museums können in solchen Fällen nicht ergänzend eintreten, da beide als sogenannte Präsenzbibliotheken geführt werden, das heisst nur an Ort und Stelle benutzbar sind. Es fehlt in Deutschland eine Bibliothek, in welcher man die gesamte in- und ausländische Literatur der Technik und ihrer Grund- und Hilfswissenschaften findet, die einspringt, wenn andere Bibliotheken versagen. Die Notwendigkeit einer solchen Bibliothek ist seit langem erkannt. An Vorschlägen und Bemühungen, sie zu schaffen, hat es nicht gefehlt. Eine neue technische Grossbibliothek zu errichten, hat sich jedoch der ungeheuren Kosten wegen bisher als unmöglich erwiesen. Das Ziel soll erreicht werden durch den Ausbau der Bibliothek der Technischen Hochschule in Berlin-Charlottenburg zu einer technischen Ausleihbibliothek grössten Stiles und modernster Art. Diese Bibliothek, die über 200.000 Bände sorgsam ausgewählter Literatur besitzt, hat sehr grosse Bestände auf allen Gebieten der Technik und einen Vermehrungsfonds, der den aller übrigen Hochschulbibliotheken bei weitem übertrifft. Sie hat im Herbst 1933 eine Informationsstelle für technisches Schrifttum eingerichtet, deren Aufgabe es ist, der technischen Wissenschaft und Praxis Nachweisungen und Auskünfte aus dem Gesamtgebiet der deutschen und ausländischen Literatur älterer und neuerer Zeit zu liefern. Die Informationsstelle ermittelt die für den einzelnen Fall in Betracht kommenden Bücher, Zeitschriften, Patentschriften, Dissertationen usw. und stellt fest, ob diese Schriften grundlegender Natur sind, die Ergebnisse eigener Forschung darstellen, also Quellenwert haben, oder ob sie ihre Betrachtungen und Folgerungen auf andere Arbeiten stützen, ohne selbst etwas Neues zu bieten. Wissenschaftlich ausgebildete und praktisch erfahrene Ingenieure bearbeiten die gestellten Fragen unter Leitung der Hochschulbibliothek. Soweit als möglich stellt die Informationsstelle die ermittelte und gesichtete Literatur dem Anfragenden zur Verfügung, sei es auf dem Wege des Leihver-

kehrt, sei es, indem sie ihm Photokopien der einschlägigen Literaturstellen sendet. Kann sie die in Frage kommenden Schriften nicht selbst beschaffen, so weist sie auf andere Bibliotheken hin, die sie besitzen. Bei ihren Auskünften beobachtet sie strenge Neutralität; ein Werturteil über das nachzuweisende Schrifttum gibt sie nicht, sie überlässt vielmehr die kritische Beurteilung dem Fragesteller. Die Informationsstelle verfolgt keine Erwerbszwecke, Gebühren erhebt sie nur zur Deckung der Personal- und Selbstkosten. Den voraussichtlichen Zeitaufwand und die dementsprechenden Kosten teilt sie auf Anfrage vorher mit. Der Direktor der Bibliothek der Technischen Hochschule Berlin, Dr. Albert Predeek, hat diese vorzügliche Einrichtung ins Leben gerufen, gestützt auf die Erfahrungen der in Amerika und England bestehenden Informationsbureaus. Es ist zu hoffen und zu wünschen, dass die Informationsstelle für technisches Schrifttum recht viel in Anspruch genommen wird als Vermittlerin der unerlässlichen literarischen Grundlagen für alle wissenschaftlichen und praktischen Arbeiten auf dem Gebiete der Technik, jener Grossmacht, deren Bedeutung für die fortschreitende Beherrschung der Naturkräfte durch die Menschheit trotz der vielen gegen die "Technokratie" jetzt erhobenen Vorwürfe von Jahr zu Jahr stärker hervortritt.

PAUL TROMMSDORFF

BIBLIOTHEK DER TECHNISCHEN
HOCHSCHULE, HANNOVER

HEIGHTS OF BOOKS IN RELATION TO HEIGHT OF STACK TIERS

THE agitation for change in the designations of the sizes of books began, like many another library reform, in 1876.¹ "The principal reason for the designation of the size of a volume in catalogues is 'to convey to those who have not seen the book some idea of its size.'"² The old method of determining the size of a volume by the binder's fold of the sheet had become, as Jewett said, "frequently deceptive," and Evans advocated that an A.L.A. committee "determine from the outside measurement of volumes of each size what should be the maximum height and breadth of the quarto, the octavo, the duodecimo, and the other sizes."

The committee report in 1878³ recommended "give the outside height in centimeters, using fractions (decimals) where extreme accuracy is desired."⁴ "For those preferring to use the common designations," the octavo was stabilized at a maximum height of 25 cm. (about 9 $\frac{3}{8}$ inches), the quarto at 30 cm. (about 11 $\frac{3}{4}$ inches), etc.

Since the standard stack had not yet been developed, and bookcases varied in height from library to library, it was not strange that it did not occur to anyone to calculate how the bookcase could be divided into the maximum number of shelves to accommodate the maximum number of books without waste of space and with a minimum number of "oversize" books left over to be shelved separately, although Dewey did discuss in 1879⁵ the advantages and disadvantages of "size arrangement" in general.

Wall cases and floor cases 8 feet high were specified in Poole's "specific plan, based on certain assumed conditions, which will suggest what I deem to be correct principles of construction,"⁶ although the

¹ *Library Journal*, I, 58 ff., article by Charles Evans.

² Charles C. Jewett, *On the construction of catalogues of libraries*, 1852.

³ *Library journal*, III, 19.

⁴ Even yet one cannot resist the query—though irrelevant to this paper—how good an idea of size is conveyed to "those who have not seen the book," by exact measurements in centimeters?

⁵ *Library journal*, IV, 118 ff.

⁶ *Ibid.*, X (1885), 254. Cf. *ibid.*, IV (1879) 294, "not higher than a person of full stature could reach without steps or ladders"; also his *Construction of library buildings* (1881).

new wing of Gore Hall at Harvard had long before made use of the bookstack construction.⁷

The heights of the ordinary ranges have varied from 7 feet (Gore Hall) to 7 feet 10 inches (Boston Public, main building), or even 8½ feet (St. Louis⁸). Fletcher, Soule, and Gerould have expressed⁹ preference for the 7½-foot stack and this has found general, though by no means universal acceptance¹⁰—the differences of opinion being due, it appears, to different estimates of the full stature of a man. Crunden's defense of his 8½-foot shelves was "By having my stack that much higher, I have without much difficulty got another row of shelving all over the library,"¹¹ and W. R. Eastman¹² advocated a height of 8 feet, to accommodate 8 shelves of 10-inch openings.¹³ As Bernard R. Green summed it up,¹⁴ "The stature of men and women governs and limits the interspaces of the stack, while the dimensions of the items of the collection . . . determine the dimensions and intervals of the shelving itself."

It seems too funny to be true that we have determined our book sizes without reference to shelving and the height of our stack ranges without reference to the heights of the books to be shelved there. And it probably is not true—at least the variation between libraries in the dimensions distinguishing octavos, or ordinary size books from over-size books (quartos and folios) is doubtless to be accounted for by the attempts of these libraries to include in the "ordinary" size the maximum number of books which can be economically shelved in the bookcase or stack construction with which the respective libraries are equipped.¹⁵ Lane's study of the Harvard College Library shelv-

⁷ *Ibid.*, IV (1879), 294 ff.

⁸ Cf. *ibid.*, XVIII (1893), C 30.

⁹ William I. Fletcher, *Public libraries in America* (1894); Charles C. Soule, *How to plan a library building* (1912); and James T. Gerould, *The College library building, its planning and equipment* (1932).

¹⁰ In reply to a recent questionnaire only 11 out of 31 libraries reported 7½-foot stacks. There were variations in the size of the regular stacks from 7 feet (University of Missouri and Southern California) to 8 feet (John Crerar and University of Pennsylvania). In stacks for special collections the variations were even greater, 6 feet 10 inches (University of Missouri); 9 feet 6 inches and 8 feet 4 inches (University of Iowa); and 11 feet (University of Pennsylvania basement).

¹¹ *Library journal*, XVIII (1893), C30.

¹² *Ibid.*, XXVI (1901), C42.

¹³ His *Library building* (1912) recommends ranges of 7 shelves 10 inches apart.

¹⁴ *Library journal*, XXXI (1906), C54.

¹⁵ While many libraries take a measurement between 10 and 11½ inches as the dividing line between octavos and quartos, the University of Cincinnati Library takes

ing¹⁶ pointing the moral that "careful attention must be given to the mathematical details and those dimensions should be adopted which give the best practical results," should have led long ago to the sort of study we are at present engaged upon.

Lane took as his unit of measurement, or "point," the inch-and-one-eighth adjustment provided for the shelving in the recently constructed library at Harvard. "A shelf of 11 points [$12\frac{3}{8}$ in.] proves to be the best for general use here" [$\frac{3}{8}$ in. shelf, 11 in. book, $\frac{5}{8}$ clearance above book]. . . . "Theoretically one would expect to get seven 11-inch shelves in $81\frac{1}{2}$ inches [*sic*]. On these floors we have $82\frac{1}{2}$ and $84\frac{1}{2}$ inches clear. . . . But the measure of adjustment, $1\frac{1}{8}$ inches, does not happen to make the space fully available." Mr. Lane did not give statistics to explain his preference for the 11-inch (i.e., including thickness of shelf and clearance $12\frac{3}{8}$ inches) shelf; but if we may assume that a limit of 11 inches (28 cm.) for ordinary size books is the optimum compromise between convenience and space economy, we should ask stack manufacturers to provide the proper height of range and proper adjustment to accommodate seven 11-inch shelves ($7 \times 12\frac{3}{8} = 86\frac{3}{8}$) plus whatever is necessary for floor ($3\frac{1}{2}$ inches?) and base (0-4 inches?). That is, the present $7\frac{1}{2}$ -foot stack would need to be heightened by just about the amount that should be allowed for base. Reckoning with a one-inch adjustment (instead of inch-and-one-eighth) and a shelf $\frac{5}{8}$ -inch thick, the $7\frac{1}{2}$ -foot stack could be made to accommodate 7 shelves of 11-inch books, leaving 6 inches for floor and base. This 6 inches is probably too little, and so we should heighten the stack range to, say, 7 feet 8 inches (from the standard $7\frac{1}{2}$ -foot stack).

Estimates at Yale University in 1920¹⁷ showed that $87\frac{1}{2}$ per cent of the books in the library were not more than 26 cm. ($10\frac{1}{4}$ inches) high (the Yale octavo dimension). Quartos ($26\frac{1}{2}$ -40 cm. or $10\frac{1}{2}$ - $15\frac{3}{4}$ inches) were estimated to be 10.9 per cent; and folios (40 $\frac{1}{2}$ cm. and higher) 1.6 per cent. If one accepts 26 cm. as the dividing point between ordinary size and oversize, then a sufficiently adjustable $7\frac{1}{2}$ -foot stack should accommodate 7 shelves $\frac{3}{4}$ inch thick and $10\frac{3}{4}$ inches apart (books $10\frac{1}{4}$, clearance $\frac{1}{2}$ inch) with $9\frac{1}{2}$ inches left over for floor and base. Eight shelves of these dimensions would require a stack of height 92 inches plus necessary allowance for floor and base. If, however, the

$9\frac{1}{4}$ inches for its first division, the University of California Library $12\frac{3}{8}$ inches, and the University of Pennsylvania 16 inches.

¹⁶ *Library journal*, XLI (1916), 238 ff.

¹⁷ According to work-sheets which Dr. Keogh was so kind as to lend us.

shelf adjustment can be no less than one inch, the calculation of the number of shelves would be the same as for 28 cm. books.

Still another calculation may be made on the basis of the estimate in Gerould's *The College library building* that 85 per cent of our books are octavos (if we may assume that the reports on which these estimates are based were all stated in terms of the octavo, quarto, and folio as 25 cm. or under, 26½–30 cm., and 30½ cm. or over). If, then, 25 cm. (9¾ inches) be taken as the dividing point between ordinary size and oversize, a closely adjusted 7½-foot stack would accommodate 7 shelves with 12¾ inches over for floor, base, and waste space. Eight

TABLE I

Book Height	Approximate Percentage of the Whole
20 cm. (7¾ in.) or less.....	28+
20–23 cm. (9 in.) or less.....	31+
23–25 cm. (9¾ in.) or less.....	21+
25–28 cm. (11 in.).....	10+
28–30 cm. (11¾ in.).....	2+
30–33 cm. (13 in.).....	2+
33–40 cm. (13¼–14¾ in.).....	3+
45 cm. (17¾ in.) up.....	1+

shelves would require a stack of height 89 inches plus amount necessary for floor and base.

Reckoning again with a one-inch adjustment and a ⅝-inch-thick shelf, 7 shelves in a 7½-foot stack would leave 13 inches for floor and base, and 8 shelves in an 8-foot stack would leave 8 inches for floor and base.

We have recently measured about 100,000 volumes at Brown University. The results are in Table I.

Any division for shelving purposes should at least provide for shelving a substantial majority of the books in one series and therefore the dividing point should be somewhere between 25 cm. (including about 82 per cent of our books) and 28 cm. (including about 92 per cent).

On the Yale estimate that 87.5 per cent of our books are 26 cm. or less, 26 cm. is a tempting division and the 7½-foot stack is the best height providing close adjustments to 26 cm. (10¼ inches) plus a half-inch for clearance are possible. If, however, the adjustment cannot be less than one inch, then we should have the 28-cm. limit for ordinary size books and a 7-foot-8-inch stack.

On the other hand, if, as Dr. C. C. Williamson and Mr. Angus Macdonald have suggested to me, 16-foot library rooms are preferable to

15-foot rooms, in order to allow for galleries or mezzanine floors, an 8-foot stack may again become the fashion. This would accommodate 8 shelves of 26-cm. books only by reducing the allowance for both floor and base to 4 inches (one would have to omit the base and let the bottom shelf rest immediately on the floor), and only if the shelf adjustment could be made fine enough.

The 25-cm. limit would throw from $2\frac{1}{2}$ to $5\frac{1}{2}$ per cent more books into the oversize groups and is wasteful of space in the $7\frac{1}{2}$ -foot stack, but would fit admirably in the 8-foot stack.

The 28-cm. (11-inch) limit in a $7\frac{1}{2}$ -foot stack, even with exact shelf adjustments, would permit of seven shelves only if one placed the bottom shelf directly on the floor, or within two inches of it, in an 8-foot stack would waste space, but would be satisfactory in a stack range 7 feet 8 inches high.

Provided adjustments are exact, then, 26 cm. is the best dividing point in the $7\frac{1}{2}$ -foot stack and will accommodate 87.5 per cent of all our books. In an 8-foot stack, however, the 25-cm. limit is more practical, accommodating some 82 to 85 per cent of the books. And if the 28-cm. limit is preferred, bringing some 92 per cent of the books together, the height of stack range should be 7 feet 8 inches.

Similar calculations for oversize books show that the $7\frac{1}{2}$ -foot stack would accommodate 5 shelves of 38-cm. (15-inch) books with a half-inch clearance space on each shelf and from $8\frac{3}{4}$ to 10 inches (according to shelf adjustment) left over for floor and base; or 4 shelves of 48-cm. (19-inch) books leaving 9 or 10 inches for floor and base.

The 8-foot stack, with exact adjustment, would take 6 shelves of 34-cm. ($13\frac{3}{8}$ -inch) books, leaving $8\frac{1}{4}$ inches for floor and base; or 5 shelves of 42-cm. ($16\frac{1}{2}$ -inch) books, leaving $7\frac{1}{4}$ inches for floor and base; or 4 shelves of 51-cm. (20-inch) books, leaving 11 inches for floor and base. With one-inch adjustment, the 6 shelves would hold 35-cm. ($13\frac{3}{4}$ -inch) books but have only 6 inches for floor and base; 5 shelves would hold 40-cm. ($15\frac{3}{4}$ -inch) books with 10 inches for floor and base; and 4 shelves would hold 51-cm. (20-inch) books, also with 10 inches over. A 7-foot-8-inch stack would take 6 shelves of 33-cm. (13-inch) books with from $6\frac{1}{2}$ to 8 inches for floor and base; or 5 shelves of 40-cm. ($15\frac{3}{4}$ -inch) books or 4 shelves of 51-cm. (20-inch) books, with 7 inches for floor and base.

The 18-inch dividing point between folios that stand and those which lie flat¹⁸ does not fit particularly well either the $7\frac{1}{2}$ -foot or the

¹⁸ Gerould, *op. cit.*, p. 71.

8-foot stack, since the one would accommodate 4 shelves with 13 or 14 inches left over for floor and base, and the other 4 shelves with 19 or 20 inches for floor and base, nor, of course, does it fit the suggested stack of 7 feet 8 inches height.

This paper should be considered merely tentative and incomplete. Our estimate of 82 per cent for octavos (25 cm. high), Mr. Gerould's estimate of 85 per cent, and the Yale estimate of 87½ per cent (reckoning the octavo at 26 cm. high) may not be so different when we have measured 400,000 volumes instead of 100,000.

Second, we have not as yet tabulated variations in percentage of octavos of books in different parts of the library or of books in different subjects (the Yale estimates for octavos, for instance, vary from 10 to 98 per cent, or, excluding newspapers and learned societies, from about 45 per cent for art books to 96 per cent or more in the sections of history, literature, sciences, etc.). In a general library, probably the general average would have to be followed rather than different figures for different classes, but in special collections or special libraries the average of a class rather than of the whole library might determine the optimum dimensions for ordinary size books and the optimum height of stack range.

Third, we have disregarded the possibility of using the dummy system instead of size notation, which, by frequent readjustment of shelves, of course, can be made to reduce the number of books shelved separately from those of "ordinary" size.

Fourth, we have disregarded the scheme of shelving oversize books on the lower shelf underneath the ordinary size books, since, however opinions may differ as to the convenience of this arrangement, there can be little question but that it is less economical of space. Eventually, however, some calculations should be made on a combination of ordinary size and oversize books in the same tier of shelves.

Finally, it is not unlikely that an up-to-date popular library would show quite different ratios between octavos and other sizes from those found in university libraries, which include to a greater extent books in the fashions of all ages. Four hundred thousand is quite a lot of books to measure, but it may not be enough, and we should welcome collaboration in further measurements, tabulations, and conclusions.

HENRY B. VAN HOESEN
NORMAN L. KILPATRICK

THE CONTRIBUTORS TO THIS ISSUE

JOHN ANSTEINSSON, born in 1893, is one of more than one hundred young librarians from Norway who have studied in American library schools. He was graduated from the New York State Library School at Albany in 1919. After returning to Norway, he became librarian of the Tekniske Høiskole in Trondheim, which he organized on modern lines. In 1928, being one of the few men graduated from Albany who had specialized in cataloging and classification, he was asked to assist in the reorganization of the Vatican Library. Here his services proved so valuable that he was appointed by the Carnegie Endowment for International Peace to continue for two years, which he did. He is the chief compiler of the *Cataloging rules of the Vatican Library*,¹ a volume of over four hundred pages. Mr. Ansteinsson was later called to the University of Michigan to aid chiefly in the administration of the technical processes of that library for a year (1932) and to reorganize the cataloging and classification routines. He then returned to Trondheim.

ARNE GADE SMITH ARNESEN was born in Norway in 1880 and was graduated from the university in 1904. From 1911 to 1914 he served as assistant to the first librarian of the Deichmanske Bibliotek in Oslo, Haakon Nyhuus, who had been connected with the Newberry Library and the Chicago Public Library for a number of years. Mr. Arnesen was appointed chief librarian in 1914. On two occasions he visited the United States for the purpose of studying American library methods and library buildings. The results have been partially incorporated in the great building now erected for the Deichmanske Bibliotek on Hammersborg in Oslo. In addition, he has also planned a number of branch libraries and has been instrumental in furthering co-operation between Norwegian libraries. This co-operation has taken the form of printed cards similar to those of the Library of Congress and a charging system following American methods. He has also aided in introducing in the public libraries of Norway the Decimal Classification with modifications. In 1917-18 Mr. Arnesen was president of the Library Association of Norway.

¹ *Norme per il catalogo degli stampati* (Città del Vaticano: Biblioteca Apostolica Vaticana, 1931).

J. CHRISTIAN BAY was born in Rudkøbing, Denmark, on October 12, 1871. He attended the University of Copenhagen from 1887 to 1892. During the next two years he was with the Missouri Botanical Garden in St. Louis. From 1900 to 1905 he was an assistant in the Library of Congress, going from there to the John Crerar Library in Chicago, where he was a classifier until 1909, medical reference librarian until 1927, acting librarian during 1927. Mr. Bay has been chief librarian since 1928. He is the author of *Denmark in English and American literature* (1915), *Echoes of Robert Louis Stevenson* (1920), *Edward Everett Ayer* (1927), *Science in the training of a librarian* (1928), and other publications.

WILLIAM WARNER BISHOP, librarian of the University of Michigan: for biographical information see the *Library quarterly*, I (1931), 338. Mr. Bishop has been chairman of the International Federation of Library Associations since 1931.

PIERCE BUTLER, professor of library science, University of Chicago: for biographical information see the *Library quarterly*, I (1931), 212. Mr. Butler is the compiler of *A Checklist of fifteenth century books* (1933) and author of *An Introduction to library science* (1933).

JAMES B. CHILDS, chief of the Catalog Division of the Library of Congress, was born in Van Buren, Missouri, in 1896. He received his Bachelor's degree from the University of Illinois in 1918 and his B.L.S. in 1921. From that time until 1925 Mr. Childs was a cataloger at the John Crerar Library, which he left to become chief of the Documents Division of the Library of Congress, a position he held until 1931. At that time he assumed his present position. In 1930 there appeared a revised edition of his *Account of government document bibliography in the United States and elsewhere*.

JUUL DIESERUD, former reviser of cataloging, Library of Congress, was born in Norway on July 21, 1861. He attended the University of Oslo, receiving his A.B. in 1884 and A.M. in 1886, and taking his "philosophicum" in 1892. From 1893 to 1897 Mr. Dieserud was assistant librarian of the Field Museum in Chicago; librarian, 1897-1900. In 1900 he went to the Library of Congress in the position which he held until June, 1933. The St. Olav order of knighthood (first class) was bestowed on him by the King of Norway for literary activity. His publications include *The Scope and content of the science of anthropology* (1908).

ALFRED THORKIL DORF was born in Copenhagen on March 4, 1875. He received his Ph.B. from the University of Copenhagen in 1894 and

his Cand. theol. in 1899. Dr. Dorf came to the United States in 1900 as president of Nysted College, Nebraska. In 1905 he returned to Denmark to found, and act as president of, Krabbesholm College. Receiving a call from a congregation in Perth Amboy, New Jersey, Dr. Dorf returned to the United States. In 1916 he accepted a call in Chicago, where he stayed until 1928. From 1923 to 1928 he was chief bibliographer of the University of Chicago Libraries. In 1928 he went to Brooklyn, New York, as moderator of the Danish Evangelical Lutheran Church. Dr. Dorf is the editor of the *Yearbook of the Historical Society for Skive* (1910), *Hymnal for church and home* (1928), *Orders of ministerial acts* (1924), and other church publications.

AAGE GERHARDT DRACHMANN was born in Denmark in 1891 and educated at the University of Copenhagen. His special field is philology, and he has made numerous journeys to Italy in search of material for his historical and archaeological researches. Mr. Drachmann is an assistant in the library of the University of Copenhagen. In 1927 he visited the United States as a delegate to the Semi-Centennial of the American Library Association, at the close of which he spent about six months studying library methods in the John Crerar Library and the Library of Congress. In 1931 he visited the island of Rhodes and a number of places in Italy in the pursuit of a localized study of ancient oil mills and presses, the results of which were published in 1932. He also has made contributions to the history of technology and library methods generally.

COLMAN J. FARRELL, O.S.B., is librarian of St. Benedict's College in Atchison, Kansas. He was born in Wamego, Kansas, in 1900. From 1921, when he received his A.B. from St. Benedict's College, until 1925 he attended St. Benedict's Seminary. Since then he has held his present position, taking his Master's degree at the University of Michigan in 1928. Rev. Farrell was secretary of the Catholic Library Association, 1927-29, and is now chairman of the Committee on Cataloging and Classification. He is an associate editor of the *Catholic periodical index*.

T. FRANKLIN CURRIER, assistant librarian of Harvard College Library since 1913, was born on February 26, 1873. He was graduated from Harvard College in 1894. For a short time he was an assistant in the Boston Athenaeum, then an assistant in the Harvard College Library, 1894-1902, and in charge of cataloging, 1902-13. Mr. Currier is the compiler of the *Catalog of the Molière collection in Harvard College Library* (1906) and the author, with others, of *Sele-*

tive cataloging (1928) and "League of Nations publications" (*Library journal*, March 15, 1930).

SIGMUND VON FRAUENDORFER was born on December 1, 1894, in Munich. Since 1930 he has been director of the International Institute of Agriculture in Rome. His studies have been chiefly along the lines of modern languages, agriculture, books, and libraries. He studied at the University of Illinois Library School in 1926-27.

KARL T. JACOBSEN was born in Decorah, Iowa, on August 28, 1879. In 1902 he was graduated from Luther College in Decorah. He received his Master's degree from the University of Wisconsin in 1906. Mr. Jacobsen was a cataloger in the Library of Congress, 1907-11, assistant classifier in the University of Chicago Libraries, 1911-16, and head classifier, 1916-20. Since that time he has been librarian of Luther College. He is the editor of *Luther College through sixty years* (1922).

THEODORE WESLEY KOCH, librarian of Northwestern University, was born in Philadelphia, August 4, 1871. He was graduated from the University of Pennsylvania in 1892, received his A.B. from Harvard in 1893 and his A.M. in 1894. Mr. Koch was compiler of the catalog of the Dante collection at Cornell University, 1895-1900, assistant at the Library of Congress, 1902-4, chief of the Order Division, 1916-19, and librarian of the University of Michigan, 1905-16. Since 1919 he has held his present position. Mr. Koch is the author of a number of books on the library war service and monographs on foreign libraries, as well as translations of several foreign works.

WALTHER F. KOENIG was born in Germany in 1861. Before entering the Catalog Division of the Library of Congress in 1900, he had been an instructor in Latin at the University of Pennsylvania and had assisted in reclassifying that library. From the time that he became a member of the staff of the Library of Congress until his retirement in 1931, he devoted himself almost entirely to cataloging and classifying general and classical philology. His work culminated in the publication of the schedule of Class PA, classical philology and literature (1928) in the Library of Congress Classification. Mr. Koenig is now in Oldenburg, Germany, engaged in writing and study along the lines in which he is interested.

ELIZA LAMB, born in Utica, New York, received her Bachelor's degree from Western College in 1900 and attended New York State Library School from 1900 to 1902, receiving her certificate in 1901.

Her positions have included that of an assistant cataloger in the Library of Congress, 1906-10, head of the cataloging department of the University of Chicago Libraries, 1919-30, and her present position, assistant librarian in charge of cataloging and classification of the University of Wisconsin, which she has held since 1930.

WALTER LICHTENSTEIN was born in Brunswick, Germany, April 13, 1880. In 1899 he was graduated from New York University, received his A.B. from Harvard in 1900, A.M. in 1901, and Ph.D. in 1907. Mr. Lichtenstein was editor of the *New international encyclopedia*, 1902-3, curator of the Hohenzollern collection at Harvard, 1905-6, and librarian of Northwestern University from 1908 to 1919. He has been associated with the First National Bank of Chicago since 1918, and is now vice-president. He has made extensive trips in Europe and South America in the interest of libraries and has edited a number of historical works.

HARRIET D. MACPHERSON is assistant professor of cataloging and classification, School of Library Service, Columbia University. She was born in College Point, New York, June 11, 1892. She received her B.A. from Wellesley College in 1914, her M.A. from Columbia in 1924, and Ph.D. in 1929. In the summer of 1923 she was awarded a *diplôme supérieur* from the University of Nancy, and in 1925, a certificate from the Sorbonne. Miss MacPherson received her library-school certificate from the New York Public Library in 1917. She has had cataloging experience at Columbia University, College of the City of New York (head cataloger, 1924-28), and has been on the staff of the School of Library Service, Columbia, since 1927. She has held her present position since 1930. Miss MacPherson has been very active in the American Library Association and has published several studies in the Institute of French Studies series, as well as articles in professional periodicals.

WILLIAM STETSON MERRILL was born January 16, 1866, in Newton, Massachusetts, and did his undergraduate work at Harvard, being graduated from there in 1888. Mr. Merrill was on the staff of the Newberry Library from 1889 to 1930, first in the order department, then as head of the department of classification, 1895-1917, serving as head of the public service department until 1928, when he was supervisor of technical procedure. After leaving the Newberry Library he was an assistant classifier at the John Crerar Library. Mr. Merrill is the author of *Index to the publications of the Archaeological Institute of America, 1879-89* and the *Code for classifiers* (1928). He has also contributed to various periodicals.

JOHN MINTO, M.A., F.L.A., is librarian of the Signet Library, Edinburgh. He was born in Aberdeenshire, Scotland, on October 8, 1863, and is a graduate of Aberdeen University. Mr. Minto has been actively associated with library-school training, having been examiner in literary history, bibliography, and book selection for the Library Association diploma, and external examiner in bibliography for the University of London diploma in librarianship. From 1921 to 1925 he was president of the Scottish Library Association. Mr. Minto is the compiler and editor of numerous library and other official publications and catalogs, including the *History of the public library movement in Great Britain and Ireland* (1932) and the English edition of *Anglo-American cataloging rules* (1908). He served as chairman of the British Committee on Rules in 1907, when the agreement with the corresponding American committee was consummated.

ABRAHAM WILHELM MUNTHE is a member of a family very prominent in both Norway and Sweden in art, science, and literature. He was born in Norway in 1883. In 1908, shortly after his graduation from the University of Oslo, he became an assistant in the university library. His first chief was the well-known A. C. Drolsum. Upon the latter's death in 1922, Mr. Munthe was appointed chief librarian. It was largely under his direction that the transfer of the library to a new building was carried out. He planned a very important extension which has recently been completed. In 1930 he visited the United States. On his return to Norway he wrote his impressions of American libraries, particularly buildings, both for the *Zentralblatt für Bibliothekswesen* and the *Nordisk tidsskrift för bok- och biblioteksväsen*. Mr. Munthe's second visit was in October, 1933, for the purpose of attending the International Library Conference in Chicago, in which conference he took a notable part.

ADOLF CARL NOÉ was born in Gratz, Austria, on October 28, 1873. He was educated at the universities of Gratz, Göttingen, and Chicago. He was graduated from the University of Chicago in 1900 and received his Ph.D. in 1905. Dr. Noé taught German at Leland Stanford University, and the universities of California and Chicago. In 1924 he became assistant professor of paleobotany at Chicago and in 1925 associate professor. From 1912 to 1932 he held a part-time appointment as a classifier in the University of Chicago Libraries. He was also for several years secretary of the Bibliographical Society of America and editor of its publications.

HARRIET WHEELER PIERSON, born in Florida, New York, October 9, 1874, was a student at Mt. Holyoke College and the New York

State Library School. From 1896 to 1900 Miss Pierson was on the staff of the New York Public Library and since that time has been at the Library of Congress. Her position is now that of reviser in charge of the Society Publications Section. She compiled for the Library of Congress the *Guide to the cataloging of the serial publications of societies and institutions* (rev. ed., 1931).

HERBERT PUTNAM, Librarian of Congress: for biographical information see the *Library quarterly*, I (1931), 89.

THORVALD SOLBERG was born in Wisconsin on April 22, 1852. He was on the staff of the Library of Congress from 1876 to 1889 and Register of Copyrights, 1897-1930. Mr. Solberg was active in securing international copyright and has many times been the official delegate of the United States to international copyright congresses. He is also the author of numerous articles and drafts of bills pertaining to copyright, the compiler of several bibliographies, and a contributor to various American and foreign journals.

HELEN K. STARR was born in Algona, Iowa, on July 30, 1880. After receiving her Bachelor's degree from Grinnell College in 1901, she attended the University of Illinois Library School for two years. From 1904 to 1918 she was in the Catalog Division of the Library of Congress. From there she went to the James Jerome Hill Reference Library in St. Paul as head of the catalog department. In 1929 Miss Starr was appointed assistant librarian of this institution and in 1930, chief librarian, her present position.

LEONHARD STEJNEGER is a native of Norway, having been born in Bergen October 30, 1851. He came to America in 1881. Since 1911 he has been head curator of biology of the Smithsonian Institution, National Museum. He has gone on several scientific expeditions and has been a delegate to numerous international scientific congresses. On four different occasions he went to Europe to study museum administration and finances. Mr. Stejneger is the author of many publications, particularly on zoological subjects and the fur-seal industry.

EUGÈNE TISSERANT was born in France in 1884. In 1907 he was ordained a priest. From 1908 to 1930 Mgr Tisserant was curator of oriental manuscripts in the Vatican Library. Since then he has been acting-director of the library. He was a member of the Biblical Commission in 1914 and rapportem for the Oriental Church, 1926, and of the Historical Section of the Rites, 1930. Mgr Tisserant took an active part in the International Library Conference in Chicago, October, 1933, to which he was an official delegate.

PAUL TROMMSDORFF, chief librarian of the Technische Hochschule,

Hannover, was born in Erfurt, Germany, on May 19, 1870. He is a graduate of the University of Berlin, where he specialized in classical philology and ancient history. In 1896 he joined the staff of the University of Berlin library. He served also in the State Library at Berlin and as librarian of the Technische Hochschule at Danzig before receiving his present position.

HENRY BARTLETT VAN HOESEN was born in Truxton, New York, December 25, 1885. He is a graduate of Hobart College, 1905, and did his graduate work at Princeton, receiving his A.M. in 1906 and his Ph.D. in 1912. In 1915-16 he was curator of manuscripts and rare books at Princeton and assistant librarian from 1916 to 1929. He then went to Brown University as associate librarian and was appointed chief librarian in 1930. Mr. Van Hoesen is the author of *Roman cursive writing* (1915), co-author of *Bibliography practical, enumerative, and historical* (1928). With A. C. Johnson he edited *Papyri in Princeton University collections* (1931) and with others, edited and contributed to *Selective cataloging* (1928).

THE COVER DESIGN

PIERRE LE ROUGE, whose mark is reproduced on the cover, was a member of a well-known family of calligraphers, illuminators, and miniaturists, several members of which turned their attention to printing. He began his career in Chablis in 1478 where he printed Magni's *Book of good manners* and a local breviary, but in or before 1487 he migrated to Paris and by 1488 was appointed Printer and Bookseller to the King.

The work of Pierre Le Rouge is of a very high quality. The traditions which he had inherited from his family affected noticeably his typographic style. His books are ornamented lavishly and with a startling originality; indeed, it is not too much to say that in illustrating and decorating them he forced the knife of the wood-engraver to rival the pen of the illuminator. One of the finest examples of the work of Pierre Le Rouge is *Le mer des histoires*, which he printed in 1488 and 1489, a two-volume folio book with beautiful illustrations, borders, and initials, but even this is rivaled by another folio book, the epitome, *Lucan Suetoine et Salluste* and by the magnificent missals and books of hours which he issued. So engrossed was he in the production of fine books that he evidently reduced his bookselling activities to a minimum. He printed books for most of the great publishers of Paris and shared his house in the Rue Neuve before the Cathedral of Notre Dame de Paris at the sign of the Red Rose with a bookseller, Vincent Commin, who probably handled his retailing for him. Le Rouge continued in business until 1493.

The mark of Pierre Le Rouge shows the name of the printer displayed upon a red rose bush—indicating his sign—below a crowned fleur-de-lys—indicating his office of Royal Printer—guarded by two doves.

EDWIN ELIOTT WILLOUGHBY

COLLEGE OF WILLIAM AND MARY

BOOKS RECEIVED

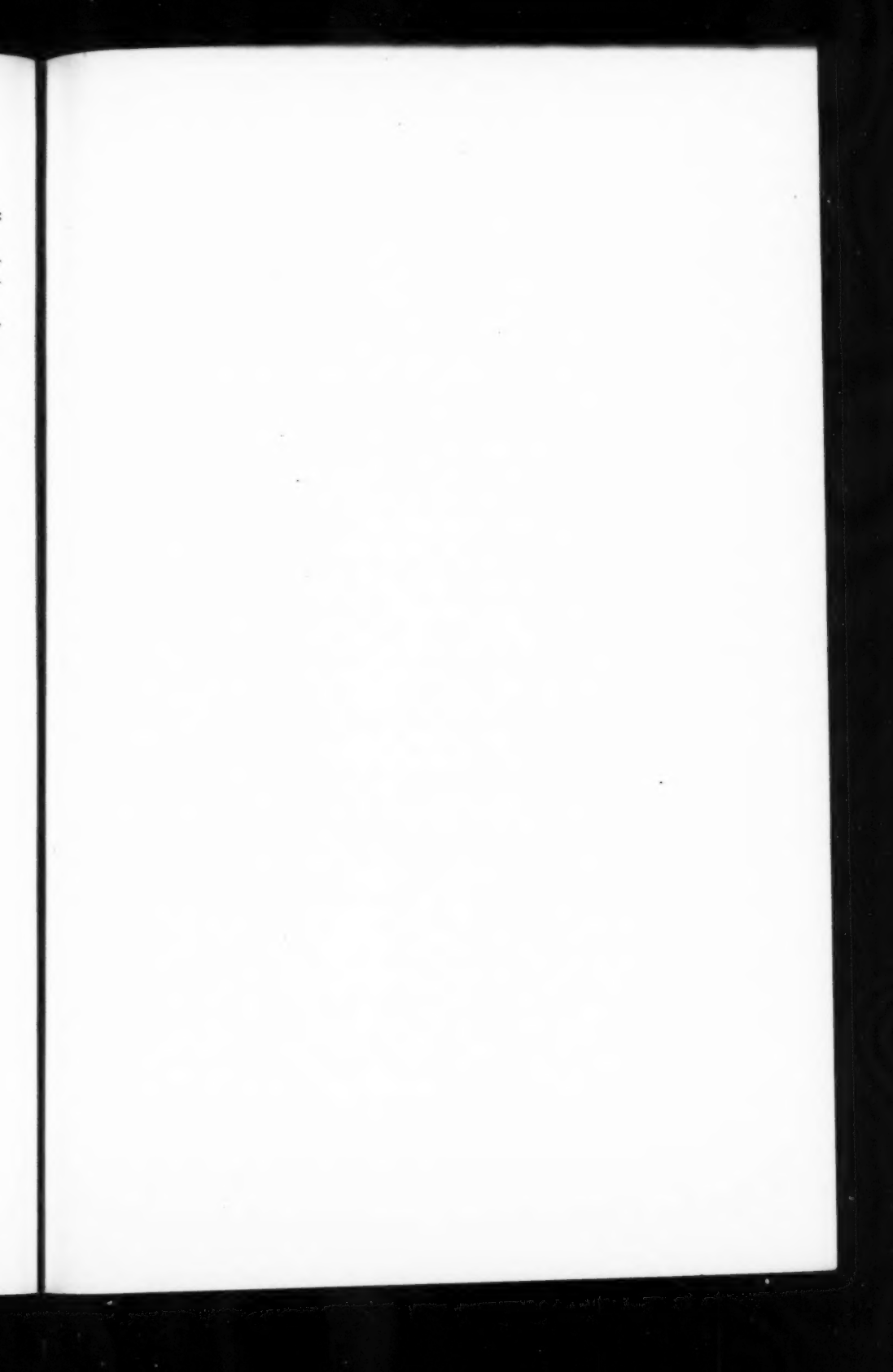
The following publications have been received at the offices of the *Library quarterly*:

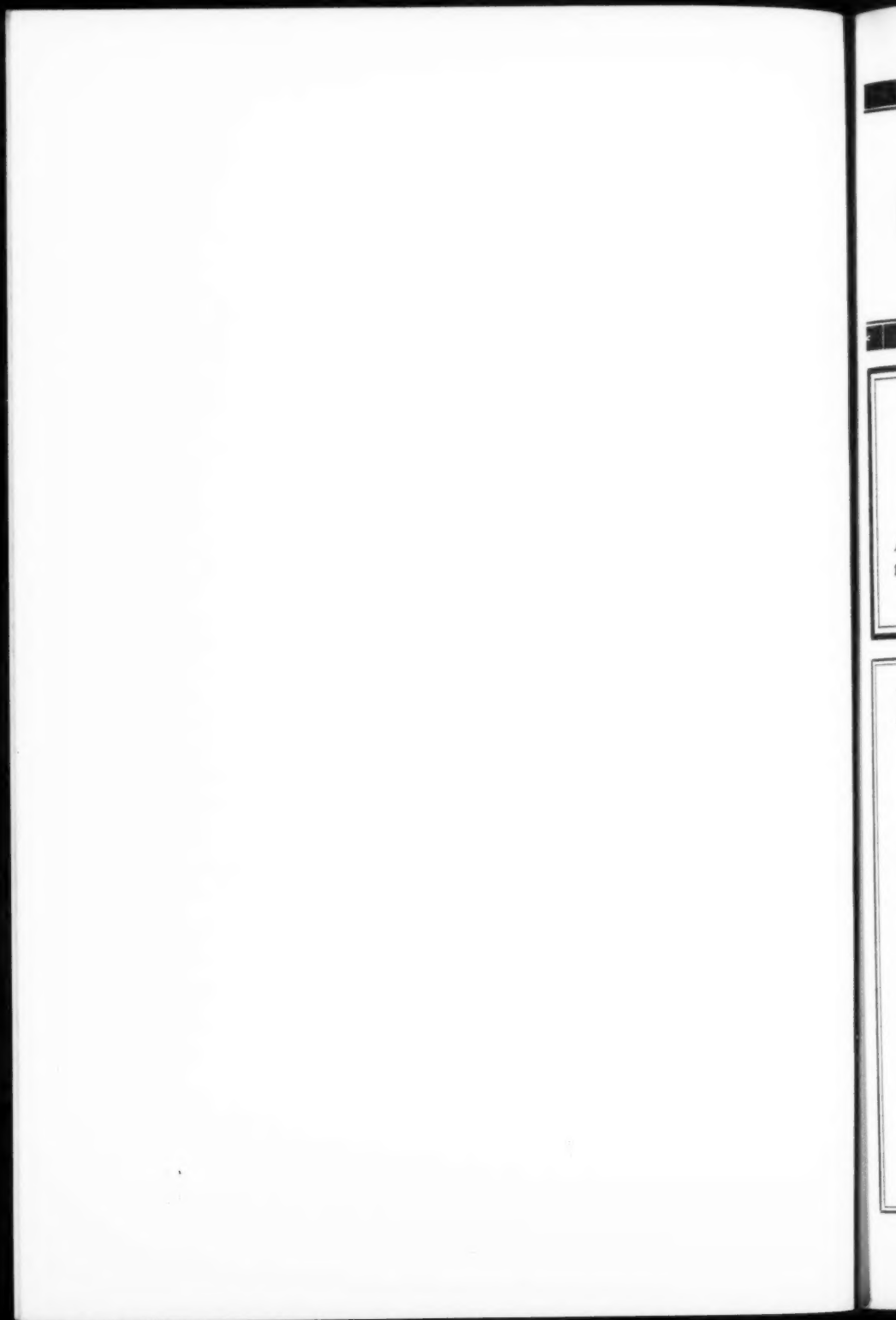
- An American bookshelf 1755*. By LAWRENCE C. WROTH. ("Publications of the Rosenbach fellowship in bibliography," III.) Philadelphia: University of Pennsylvania Press, 1934. Pp. ix+191. \$2.50.
- Anonyms and pseudonyms*. By ADAH V. MORRIS. Chicago: University of Chicago Press, 1934. Pp. 21. 50 cents.
- The Arthurian legend. A check list of books in the Newberry Library*. Compiled by JANE D. HARDING. Chicago: Newberry Library, 1933. Pp. 120.
- The Augustan principate in theory and practice during the Julio-Claudian period*. By MASON HAMMOND. Cambridge, Mass.: Harvard University Press, 1933. Pp. 340. \$3.50.
- Authors today and yesterday*. Edited by STANLEY J. KUNITZ, assisted by HOWARD HAYCRAFT and WILBUR C. HADDEN. New York: H. W. Wilson, 1933. Pp. vii+726. \$5.00.
- Zur Beurteilung des Methodenstreits in der Inkunabelkunde*. Offprint of the *Gutenberg Jahrbuch, 1933*. By CARL WEHMER. Mainz: Gutenberg Gesellschaft, 1933. Pp. 77.
- Bibliography of American college library administration. Supplement, March, 1931—July, 1933*. Compiled by DOROTHY A. PLUM. Poughkeepsie, N.Y.: Vassar College Library, 1933. Pp. 42. 50 cents.
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